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Original Lectures.

INTRODUCTORY LECTURE FOR THE SESSION OF 1897 98, BY C. H. VILAS, M. D., SENIOR PROFESSOR OF THE DEPARTMENTS OF THE EYE AND THE EAR, THE THROAT AND THE NOSE, IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL, OF CHICAGO. DELIVERED SEPTEMBER 23, 1897.

In appearing before you as the senior representative of the departments wherein are taught the diseases of the eye, the ear, the throat and the nose, with their remedies, medical and surgical, a pause may well be made ere we study these great subjects, to consider how best it can be accomplished.

I assume you are aware that no effort will be made to fit you for specialists, for you are not here for such purpose. It is our intention to teach only those cardinal principles so essential to the general practitioner, and to teach mainly the remedies and how to use them for those diseases which necessarily fall to his care whether or not he refer them to one who gives exclusive attention to one or more of these important organs. That it is but a few years since one so doing was branded as a quack and promptly excluded from medical societies is indeed true; but with educated men as specialists, a better knowledge of the subjects more widely diffused, and better educated general practitioners capable of appreciating the advanced state of these branches, all such intolerance and narrow-mindedness have passed away. I hope among those before me are some who will take up one or more of these

subjects for special study and practice, and endeavor to add to the sum of knowledge now stored away for those who seek it.

I therefore shall not argue the question as to the advisability of taking a specialty; but rather I shall consider how best to prepare for it, and the qualifications essential thereto.

It may be now and then that a student in early life shows such a decided predisposition as to clearly mark him as one suited to a given specialty, but such cases are extremely rare; a choice made from such a reason is apt to end in failure. To my mind all students should take a full course and become accredited general practitioners before selecting any branch as a specialty; no time can be lost by such a course, and much gained in the way of capacity to judge for what one is best fitted. For I hold that the relations between a general and a special practice are so closely allied that no one can become a superior specialist unless he previously becomes a good general practitioner. Every organ is but a component part of the general system, and troubles which find expression in any organ may have their causes far remote from the organ for which relief is sought. It would be but a small part due to a patient, if when seeking relief from a retinal hæmorrhage we should treat it as a local trouble alone, because we did not recognize that the effusion might be due to a kidney lesion demanding immediate treatment also; nor would one gain much reputation in any locality, laying aside all other incidental questions, should he long continue attending, or even once diagnosticate, a case of measles as a severe eye affection.

Yet the general practitioner through ignorance or neglect of the danger of measles may cause such damage to a patient by failing to properly treat this disease that no specialist can afterward remove it. In diseases also, acute or chronic, some organ may give expression to a pain caused by another organ, failure to recognize which would cause serious mistakes. The eye may irritate adjacent

muscles or the brain ; the nose often drags on the eye ; the ear becomes complicated with, and disease arises therein from, brain troubles ; the sexual organs affect the eye within and without, and irritate the brain and spine ; the liver clogs the nose ; lesions of the spine irritate the eye; laryngeal spasm may result from phimosis; a hypertrophy of the nose often causes conjunctivitis, etc. Indeed so many are these associated troubles and so common are the reflexes that the list of these associated troubles might be much extended, and they have been and now are being made the subjects of separate treatises and exhaustive study.

Absurd as it then is to suppose that the study of any one organ or set of organs can make an accomplished specialist, it is no bar to specialism in medicine or any other branch of scientific study, that such is the case. Once a thorough general mastery of any subject is obtained, excursions into surrounding and allied branches always result in increased knowledge and usefulness, if such researches be conducted by competent men. Merely assuming a specialty does not make a specialist. To succeed in any branch in acquiring the knowledge therein known, demands of the seeker special qualifications fitted to such quest ; and each person is successful in such pursuit in proportion as he brings thereto a mind adapted by nature, trained by hard application, incited by an energetic, strong love of knowledge, and sustained by a high sense of duty.

These qualifications are essential then to a mastery of the principles of any science; additional qualifications which produce such a mind as that of a Darwin are special and extraordinary gifts seldom granted, and fortunately not needed to attain the practical parts of any art or science. Nor are they so generally appreciated as are those of a more practical nature, such as were given a von Graefe, or as are the unflagging devotion and high aims of a Sicard.

I shall not now dwell on those qualifications which

make a specialist successful in the practical world, such being foreign to the scope of this lecture, but dismiss this branch of my subject by remarking that the best exponents of the profession, those who have made it what it is and who carry the burden of the practice, will now well come any who may come prepared, and who shall conduct themselves as deserving specialists and not as impudent and devastating marauders.

The branches you are about now to consider are the most fascinating to study in health or disease, and yield to none in the results attainable from proper treatment. Anatomically and physiologically studied their power to hold attention is unsurpassed; pathologically of marvelous, and surgically and medically of absorbing interest. The methods whereby the eye discerns the colors, the ear catches the tones and the throat produces them, will hold the attention of all scientific students; and a sense of satisfaction accompanies their understanding not found in any other branch of medical study.

But, alluring as our course and clinics are, we do not intend that you shall be entertained at the expense of instruction. An understanding of how the colors that one can see in a sunset may be increased by education, until one may see what others imagine impossible; or, of how the cultivated ear may detect notes that are unperceived by the novice or half-cultivated, may indeed be well worth all the pains required to its accomplishment, but this and other pleasures of our art must be left for study in those schools where all cultivated specialists, whether of medicine or not, delight to linger. These powers of understanding come to most in varying degree, and increase by thorough study. Because any has them not, or has failed to cultivate what he has, he should not deride them. Turner saw colors in a sunset that thousands might envy, and Patti has produced notes of such exquisite tone that, alone fully recognized by her ear, they have thrilled and elevated thousands who caught but a portion of their refined melody. To a specialist in love with his art, the attuning

of lost notes in one suffering from throat or ear troubles, is a professional pleasure; to be an aurist to a good musical society a source of much interest and delight. Herein lies the value of a complete comprehension of the marvelous construction of the normal apparatus, which my predecessor has so carefully dwelt on.

With a mastery of the anatomy and physiology, the pathology of these organs will next demand your attention. With all our energies we can do little more than point out the way and start you in it. The traditional midnight oil must be burned and the attention concentrated on this part of your student and professional life, or you can in no sense become learned therein. But we shall aid you all we can in the brief time at our disposal, and we hope you will profit thereby.

The ability to make an intelligent diagnosis is another essential. This alone comes from a thorough understanding of the various diseases, and though many are easy to discern, not all are. Observation aud experience in teaching inclines me to the belief that most persons in early professional study, often in the latter stages, are handicapped rather than assisted by the carefully prepared and elaborately arranged technicalities of the profession. But one should reflect that the rules given in preparation for any subject are but the accompaniments of the drill for the shock of the encounter, and should be used largely for discipline and as the means to an end. Any good practitioner can follow well-known rules which are given for all cases, and attain mediocre success; it takes a great one to know when to break them successfully.

No great artist thinks of his brush and the positions taught in his pupilage when engaged in a great painting; no author thinks of his pen and its movements in composition; no surgeon of his knife, or whether it is held in the first, second or third position during an operation; from long drill these positions are taken without thought as the best ones, and the facile, trained hand insensibly follows the brain's monition.

We have all heard many times that art is long and life short. You ought to recognize it by this time in your course. Hence it is not wise to attempt too much in our clinics. Better learn one correct way to do a thing and do it, than to wander over the field burdened with parts of several excellent ways which do not fit together. While different persons vary much in their powers to perceive the cause of disease and the remedy needed, no one is gifted with intuition sufficient to equal hard study and earnest application. When uncertain what to do, do nothing. You need all your senses to do anything well. When these are taken away from you by excitement, or unavailable through ignorance, never permit yourself to wander vaguely. By so doing you are likely to make serious errors, to be forever after the subject of constant explanation and excuse. It is a good thing to remember that one never has to explain away or apologize for success.

The methods of instruction will be both clinical and didactic. Greater stress is laid upon the former in nearly all schools, but the latter is fully as essential as the former. No amount of observation can displace thorough study. Clinical teaching, valuable as it is, is responsible for much slip-shod practice. It is no unusual thing to hear in reply to questions as to why a medicine was given, or an operation performed, that the student saw it done by a clinical teacher, but failed to learn accurately for what reason it was done. Nothing will take the place of accurate knowledge, of thorough understanding of all the reasons why a remedy was given or an operation performed, and this can best be learned by diligent didactic teaching previous to clinical demonstration.

Our clinics are large and freely open to you. By means of the sub-clinics, a special feature of our instruction, you can plainly see all operations and treatments. My associates are earnest, zealous and well prepared for their labors. To these advantages I request your careful attention, and bid you a cordial welcome.

CLINICAL MEDICINE.

A LECTURE INTRODUCTORY TO THE COURSE ON CLINICAL MEDICINE IN THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL, CHICAGO, SESSION 1897-98, BY H. V. HALBERT, M. D., PROFESSOR OF THEORY AND PRACTICE.

It is customary, at the first clinical lecture to say something outlining the work before us. There is a doubt in my mind as to what is most appropriate, but the first occurrence to me would relate to comparisons with the past. Ten years have now passed since I began my work in this institution, and, as I therefore assume something of age, I naturally revert to what I saw in the clinical amphitheatre in my student days. I remember well how Prof. Ludlam used to tell us that teaching must be clinical to be practical and how he hammered those facts into our craniums when it was not so easy as now to find subjects for illustration. I doubt if, even in my day, I saw one-tenth of the number of cases which it will be your privilege to examine and study in this clinic during the coming term. It ought therefore to be a matter of congratulation that you live in this age of opportunity, and I trust you appreciate the fact and are willing to enlist yourselves for ardent work.

My object will be to teach you all that I may know, and further than that to study and inquire with you for all that it is possible for us to attain. A teacher must be a student with his class, and I am sure, with our conjoint efforts, we shall evolve something to repay us for the time we spend. Let me say to you, in the beginning, that I believe the day for "lecturing" has passed; life is too short and time is too fleeting to waste one moment with the sound of words; what we want now is practical understanding and practical results. There was a time when the "lecturer" held his sway with enticing words, but now the didactic effort must be supplanted by clinical facts; you must see with your own eyes and feel with your own hands and understand with your own comprehension, else your medical education is, like a memorized lesson, forgotten after examination.

I take it for granted that you have come here for all you can get, and I trust that none of you seek a diploma without giving a full equivalent for it. In fact, it is for your own advantage that you seek your medical education,

and your teachers are only a means to that end. Let me advise you, then, to cultivate the most studious habits, and by all means make the best of your time. Students should acquire a habit of quick perception, and if you seek to understand a thing, you will not be obliged to commit it to memory. Study is not measured by the number of hours spent over a book; what you learn should be grasped by the mind without any effort, then you will retain it and make it useful for the rest of your lives.

Before we proceed to the immediate theme in mind, I wish to tell you what I consider the foundation in medical study. It has previously been mentioned by the late lamented Laning as the medical tripod. I refer to anatomy, physiology and pathology. Heretofore, you have been instructed in this respect didactically, and now you are to make this instruction applicable as you come face to face with disease. Unless you appreciate this knowledge you cannot truly examine your patient, and your prescription will be unscientic.

Much has been said in the past as to the indifference of homœopathy to this mode of procedure. To such a tendency I wish to inscribe my eternal opposition. Nothing in the line of science is inimical to homœopathy. The law of similars has strength enough to give latitude to all that pertains to medicine. To be able to diagnose our case will not interfere with our prescription, and the physician who does not accept the adjuvants of medicine will meet with many ignominious failures. Anatomy, physiology and pathology will give you a keener perception of disease, and at the same time they will help you to find and understand the symptoms.

As a school of practice we have been too long on the defensive side. We must now assume the offensive. We know that our law of cure is right but we must apply it with all the advantage of modern education. I hope that you, who are favored by present opportunities, will, in no sense, play the second part in seeking and using a knowledge which relieves pain and suffering.

There seems to be a tendency at present toward the discarding of drugs. In that respect we may congratulate ourselves that our school has been foremost in bringing this about. Some have, however, claimed that this showed the inefficiency of medicine, and for that reason surgery has forged to the front as the only exponent of an exact science. This is a dangerous hypothesis, and it remains

for us to prove the value of the dynamic theory. However, unless we are equipped for accurate demonstration we shall not be able to maintain our position as physicians.

It will be my aim, in this clinic, to make a thorough study of each case, and, in that way, we shall be able to affiliate the remedy with some degree of understanding.

When a patient comes to you it is quite natural to form an opinion from the first impression. In a sense this may be correct for there is certainly an indefinable cue in the attitude and manner of a person which leads to a diagnosis. A very learned doctor once said he could form a perfect opinion of a case as the patient crossed his threshold. There is something in this, but in the present age we are not supposed to practice medicine upon opinions alone. There must be a certainty in diagnosis and an accuracy in the prescription or our results will be no better than those of the quack, whose assumption is exceeded only by his ignorance. Therefore the careful examination must take precedence. First of all, let us take the patient's history; the name, age and general health must be inquired after; then ascertain the duration of the disease, for this is of great importance for prognosis, if for nothing more. Then we should look carefully for a cause; my custom has been to obtain from patients their own idea in this respect for, invariably, they can trace the whole trouble to some particular thing. Having learned this much, you may now ask the patient to tell of the complaint; in this do not listen to all the complaints; get a brief outline of the symptoms, or, in other words, learn why you are consulted. This will give you the first accurate knowledge of what you are to cure. After this it might be well to let your patient air his aches and pains a little; from this you will learn something, and and then you are to become interrogator yourself, and you should demand answers only to your own questions.

In your own examination a point of great importance is to ascertain the hereditary conditions and tendencies. No examination is complete without this even though it may have no direct bearing in the case. Learn of all previous illness or treatments; perhaps you may find a history of over-medication. Then learn of the physical functions; is the appetite natural, do the bowels move regularly, or are there any peculiar nervous manifestations. During all this conversation you are coming nearer to a correct idea of the physical condition. When you have gained sufficient subjective knowledge, begin with your objective examination.

Let me say, at the outset, that an examination must be systematic and thorough, else it is of no value. As far as possible your patient should be stripped; you can learn but little through the clothing. A general inspection should be the first undertaking; any imperfection of a congenital or acquired character must be noticed. Is there the correct and alternate lardosis and kyphosis of the spinal column? Is the cranial symmetry perfect? Is the thoracic outline of natural contour, or do the intercostal spaces show signs of physical imperfection? Is the relation between the thoracic and abdominal regions normal, or does the excessive rotundity of the latter crowd upon and cramp the physiological action of the chest? Are there signs of acquired habits which prevent the performance of the natural functions, and is there anything in the daily life of the patient, or as the result of traumatism, which causes deformity of the physical frame? Does the skin present a healthy color, or is it glossy, shiny or rough, indicating a central lesion? All of these questions should be uppermost as you take your first view of the patient.

Now we come to the individualization in the physical examination, and this must be more searching and complete. It is my custom, for this purpose, to divide the the body into four parts, the head, the thoracic and the abdominal regions, and the upper and lower extremities. So far as the examination of the head is concerned it seems at first to be difficult and impossible, and yet it is the most important, for here we include the brain and the domain of the mental faculty. To ascertain the state of the mental power is not easy; still by a painstaking series of questions and observations it is possible to decide whether there is a mental debility, functional or morbid, or whether there is a fixed delusion, or if the worry and wear and tear of life have in any way weakened the reasoning capacity. More than this, we must carefully look to the motor brain for any perversion of the active functions.

Here, too, we must include a careful application of tests for pain, temperature and touch sensations relating to the cranial nerves, together with the trial for the motor innervation in the area of distribution of all these nerves. You will see this application in detail in our clinical work.

Then we come to the thoracic region. After our outline examination here we are to look carefully to the condition of the lungs and heart. First of all, locate the heart correctly by a careful reference to your past anatomical study;

see if the superficial and deep area of dullness are normal, if the apex beat is natural and in its proper place. Then with your stethoscope at the pulmonary and aortic interspaces, at the junction of the left fourth costal cartilage, the ensiform cartilage and an inch or more within the left nipple line, listen for the closing of the pulmonary, aortic, mitral and tricuspid valves and the heart impulse respectively. If you have followed Prof. Arnulphy's instruction closely I am sure you will be able to differentiate the normal from the abnormal signs at these points. In conjunction with this we should look also for the general symptoms relating to the heart in order to locate or eliminate any affection of this organ.

Then comes the examination of the lungs, first by observing the natural capacity through inspiration and expiration and then by the application of thorough inspection, palpation and percussion. The regions have already been learned in your study of physical diagnosis and you are to appreciate the normal from the abnormal sounds. As adventitious sounds are observed you define them more clearly with your stethoscope to ascertain the character and extent of the diseased involvement. In this way you inspect not alone the chest area but the inter- and infra scapular and axillary regions as well. Should it be necessary you should be prepared to make a microscopic examination of the sputum.

In like manner we should use the advantage of inspection, palpation and percussion in our investigation of the abdominal region. Here we are to locate and estimate the condition of the liver, stomach, spleen, intestines, kidneys and other abdominal viscera. To do this we must know exactly the natural physiological relation. The local invasion of inflammation will give unmistakable signs when there is a pronounced involvement, but when it is obscure it will require a careful study of symptoms and pathological signs. Much has been attained, of late, by the examination of the stomach contents through the system of lavage, and the same is true in the study of diet and the analysis of excreta. Also, we may learn much from the color of the skin, from the abdominal outline, from the increase or loss of flesh, and from the perversions of digestion. These principles will all be investigated and applied as we individualize each case.

As we reach the lower abdominal or pelvic regions we find the sexual organs which are such prominent factors in

the consideration of every diagnosis. I am sure you have learned from your gynæcologists how much harm may come to the physical status of a woman when the ovaries or womb are diseased, and I have no doubt they have taught you clearly how to make these examinations. It is, nevertheless, important for us, in a general clinic, to appreciate this knowledge for diagnosis and treatment.

In the diseases of men we should give serious attention to the corresponding parts for, to say nothing of the genital diseases, the prostate gland and bladder are frequently the seat of much disorder. This fact I shall seek to explain in the fullest detail as the occasion may arise.

To complete the examination of every case there must be a systematic analysis of the urine. In complicated cases this should be done by your specialist. The urine for twenty-four hours should be measured; the total solids, the specific gravity, the amount of urea, uric acid, phosphoric acid, the presence of albumen, sugar and abnormal sediments must be known by chemical and microscopic aid. This will not only give us an insight into the bladder and kidney condition, but it will show us much in case of disturbance of other functions and the existence of organic disease.

Last of all we must make a blood examination for the revelation of the most obscure causes of chronic conditions.

The foregoing is only a superficial *résumé* of what is expected for diagnostic purposes. When this is done we are to proceed to the more delicate examination of the spinal cord function, which is really an examination of the upper and lower extremities. In this we are first to learn of the muscular sense. The coarser sense is found by the performance of the grosser muscular ability through tests which combine the associate and individual contractions of the different muscular groups. The finer movements call for a more delicate action of those muscles, such as picking up a pin, touching a particular point or describing a figure. When we find the muscular sense intact we know that no deep-seated cord lesion has interrupted the reflex arc of that part. The cell function is examined by the presence or absence of paræsthesia, anæsthesia or hyperæsthesia for the sensory cells and trophic disturbances, and spasticity for the motor cells. The superficial and deep reflexes will tell us of the co-ordinate ability and the electric reactions will give us an idea of the cord integrity.

Add to all of this the careful tests for touch, temperature and pain in any part and we shall have a definite knowledge of the peripheral nerves.

We have now concluded a systematic investigation of the physical condition, and should be able to know something definite as to pathological changes. While the diagnosis is not the most important feature, it is nevertheless an aid in obtaining the correct symptoms, and without it we shall not be able to manage a case intelligently. It is at least an adjuvant in the treatment.

Our duty now is to eliminate the simulating features from the true characteristics of the disease, and then we shall come nearer to a perfect symptomatology. Let us find the peculiar, prominent and uncommon symptoms, and around such a centralization we may form the correct picture of our case. In this way we can find the similimum and apply the true Homœopathic principle. By so doing we shall be better physicians, and our results will be more satisfactory. It is my earnest hope to show you in this clinic the value of diagnosis and the truth of Homœopathy.

OPIUM AND ITS EXTRACTIVES.

By CHAS. H. EVANS, M. D., ASSOCIATE PROFESSOR OF THE INSTITUTES OF MEDICINE AND MATERIA MEDICA IN THE HAHNEMANN MEDICAL COLLEGE, CHICAGO.

Opium is the solidified juice of the capsule of a plant known to botany as paparer somniferum, commonly called the poppy. This plant is native to southern Asia, but is dispersed over all continents except Greenland. Although so widely distributed throughout the world, its cultivation for medicinal purposes is practically confined to those countries extending from the Mediterranean eastward to the shores of the Indian and Pacific oceans, from Turkey and Arabia to China. The contribution made by Australia and Africa is relatively small and generally inferior in quality, the output of the dark continent being limited to the Nile country. The poppy is cultivated on a small scale in central and western Europe, and in this country as an ornamental plant. This plant seems to require tropic heat for its successful growth, though soil and other influences no doubt contribute a share to the result.

There are two varieties of the poppy, respectively known as the white and the black, these names describing

the color of the seed; both varieties yield opium, but the white species is the one generally chosen. The plant attains a height of 2-4 feet although this is often exceeded. It branches freely in all directions and has large, irregularly-lobed and deeply serrated leaves. The flowers, situated at the extremities of the branches are single, large and white or grayish white in color. The fruit or capsule varies in size from two to four inches in diameter, divides internally into numerous septa and contains a multitude of seeds which are, however, entirely destitute of medicinal qualities. These seeds in both varieties yield by expression a bland yellow oil, often used as a substitute for or as an adulterant of much of the "pure olive oil" that is exported to this country. The seeds possess an edible value and have been used in and upon food, both in ancient and modern times.

The vast poppy fields upon the plains of Bengal have been compared to green lakes studded with white water-lilies.

Hellenic mythology attributed the origin of the poppy to the goddess Ceres, who, in despair of regaining her daughter Prosperine, carried off by Pluto, created this plant, that by partaking of its juice she might obtain sleep and forgetfulness of her sorrow. Therefore at the annual feast of Ceres, the Greeks, offering garlands of ripened grain upon her altars, twined branches of the poppy with them; she was also represented in her statues holding this plant in her hand. The deities of sleep and death were also shown with the stems and flowers of poppy bound in their hair or held in their hands.

At the time of year when the fruit of the poppy plant has reached its proper development, though still unripe, laborers proceed to the fields and scarify the outer covering or skin of the capsule. The incisions are made with nutschura, a small bundle of blades tied together, but with spaces left between them that several cuts may be made at the same stroke. A milky juice at once issues from the scarifications which in the course of a few hours thickens into a jelly and is gathered the following day. This exudate is placed in shallow vessels in order that a dark fluid may drain away, while the mass is kneaded or "worked" from time to time, the substance gradually hardening. Sophistication is not unfrequently practiced by cultivators and dealers, the most common additions being "poppy trash," bullets, stones, sand, clay, etc.

No other drug known to the pharmacopœia is produced in such quantities as opium and the geographical names attached to it, such as Turkish Smyrna, Anatolia, Bengal, Malwa, Egyptian, Australian, etc., testify to the wide extent of territory engaged in its manufacture. In India, especially, this poppy is grown not only by individual proprietors and companies but the government of Great Britain encourages and takes part in the traffic. One tract, two hundred miles in width extends along the course of the Ganges for six hundred miles in which the poppy is almost exclusively cultivated, and this is only one of the numerous localities throughout that vast peninsula. The opium derived from this immense territory is chiefly exported to China by English traders and vessels, and is a source of enormous revenue to Great Britain which has forced it into that country at the point of the bayonet. In 1820, the Chinese emperor issued an edict forbidding any vessels having opium on board to enter Chinese ports; but English vessels continued its importation without any remonstrance on the part of their home government which profited so greatly by the nefarious trade. Reprisals upon British subjects was followed by the historic "opium war," in 1841, at the conclusion of which the admission of opium was reluctantly conceded by China. The trade became so great and the evasion of duty by smuggling was practiced on such an extensive scale that China was led in 1860, to imitate and emulate "The Boston tea party." Accordingly the cargoes of several English merchantmen were seized and many thousands of pounds of opium destroyed. A second opium war followed, at the conclusion of which China was forced by the British government to admit opium into her ports in unlimited amount and practically duty free.

Opium is found in the drug market in the form of loaves or cakes of varying size, brown or reddish brown in color, with a strong disagreeable odor and a bitter, acrid, nauseous taste. The alkaloids extracted from opium are seventeen in number, the most prominent being morphia, codeia, cryptopia, thebaia, narceia, narcotina, meconium and papaverine, all of them forming salts with sulphuric, hydrochloric and acetic acids; in addition to the alkaloids just mentioned opium contains numerous acids and neutral salts, numbering altogether a total of thirty-five elementary substances.

What might be called the domestic use of opium prevails in all countries. Of all the people, the Chinese are

the greatest users of this drug, it being estimated that one-fifth of that nationality are addicted more or less to its habitual use. In Mohammedan countries the month of Ramedan, the ninth month of the Moslem calendar, is a period of almost constant fasting, neither food nor drink being permitted the faithful during the hours between sunrise and sunset. The severity of this fast may be imagined when it is understood that it occurs in midsummer, and that wine, perfume, bathing and other bodily comforts are also interdicted at that time. As a result of the natural demand for some mitigation of this harsh observance, wafers containing opium have become an article of commerce, with which many followers of the prophet silence the pangs of hunger during the hours of abstinence in commemorating the period when the Koran is said to have been revealed to Mohammet. The more ascetic Hindoo and Bhuddist devotees who impose long and rigorous religious fasts upon themselves are capable of enduring these by using opium to appease the demands of appetite.

In all communities, east and west, there is a large and growing class who have contracted what is known as the "opium habit" who have become so enthralled by its tyranny that they will pay any price rather than endure the tortures following upon its discontinuance; these are the so-called opium eaters and smokers, the laudanum drinkers and morphinists, of whom a hundred things might be said did not time forbid.

In medicine the antiquity of opium is unknown. A fluid preparation was used at some uncertain period as the Thebaic tincture, named from the ancient and famous Egyptian city of Thebes. Hippocrates mentions it as a drug for occasional use but not as the panacea of the present day. The ancient local use of poppy heads as a fomentation to procure ease from pain and induce sleep has only recently been discontinued.

Opium was one of the substances contained in those miscellaneous compounds of archaic pharmacy respectively known as Theriac, Mithridate, Diascordium and Philonium, the first mentioned consisting of seventy two ingredients and the others of a score or more. In mediæval and modern times opium has been mingled with a vast number of medicinal compounds, but the most commonly used preparations are the tincture, called laudanum, paragoric a compound tincture, deodorized or denarcotized tincture, Dover's powder and wine of opium, together

with those semi-official compounds celebrated as Godfrey's cordial and Dalby's carminative, mixtures more honored in the past than in the present. Nearly all cough syrups contain opium in some form, and a great number of liniments hold it in solution, lozenges and troches of various descriptions include it, and it is incorporated in plasters for general use; suppositories are also vehicles for its local employment. Mrs. Winslow's soothing syrup is said to contain morphine, and it is an ingredient in various other proprietary articles. Morphine is so generally used at the present time, either by the mouth or hypodermically, that it has almost displaced the use of opium by the dominant school; but this substitution of a single constituent for the combined effect of thirty-five cannot be countenanced by the disciples of Hahnemann. The axiom that the whole is the sum of its parts holds good in regard to the effects of opium as it does to everything else, and as our provings and the majority of the observations of its toxic influence have been obtained from the action of opium in its entirety, it is imperative that it should be prescribed in the undivided substance; morphine, on the other hand, should be prescribed from its known pathogenetic effects alone.

A glance at the effects of some of the constituents of opium will show individual pathogenetic influences, thus: opium raises the temperature and then depresses it, but morphine depresses it at once with but little or no previous elevation; opium has a much greater hypnotic and convulsive effect than morphine; codeia bears a resemblance to the action of morphine but very much less in degree; narcotine, unlike its name, scarcely produces any narcotism but is a powerful convulsant. The secondary effects of opium are not nearly so great as those following upon morphine; narcein stimulates but does not narcotize; thebaia exercises a strong convulsive influence; narcein and codein have a hypnotic effect without the anodyne influence. Further comparison of the pathogenetic effects of these alkaloids with opium and with each other would only emphasize the examples presented, and all together afford conclusive evidence that the isolated "principles" of a drug do not and cannot take the place of the natural compound.

Stretched upon the procrustean bed of classification, opium, like many other medicinal substances, refuses to conform to arbitrary rules. Although in constant use for

twenty-five centuries it has not yet been established whether it is stimulant or narcotic. It is also designated as anodyne, sedative and hypnotic, and may also be included under the now fashionable title, analgesic. These terms do not, however, define the action of the drug, but rather indicate its therapeutic result, which is the reverse of its pathogenetic effects. It has the power of relieving pain, relaxing spasm and inducing a state of unconsciousness. As an antiphlogistic it has been greatly abused, and this without reason, for provings in all degrees of dosage fail to show the presence of inflammation either during life or post-mortem in fatal cases following upon its use.

When opium or morphine has been taken into the healthy human body a comparatively short time elapses before its effects are manifest. Then a sense of warmth is felt to pervade the whole system, the eyes glisten and the face becomes flushed, giddiness is felt, ringing or humming sounds are heard in the ears and a feeling of dryness is experienced in the nose, mouth and throat. Vomiting sometimes takes place, but nausea is only slight, rejection of the contents of the stomach occurring suddenly and almost without warning. Heart and pulse are increased in vigor and respiration is accelerated in the same proportion. A general feeling of increased vigor is experienced, a sense of well being together with a glowing courage and boldness to accomplish and endure.

The emotional faculties become impressed and an exalted sense of duty and achievement is mingled with the loftiest moral sentiments and aspirations for self and others. The mind undergoes a state of expansion and mental operations seem to be performed with greater scope and ease. This exalted state is succeeded by one of languor and delightful repose, not inaptly described by Tennyson of the lotos eaters, that

> "Whoso did receive
> And taste, to him the gushing of the wave
> Far, far away did seem to moan and rave
> On alien shores; and if his fellow spake,
> His voice was thin, as voices from the grave;
> And deep asleep he seemed yet all awake,
> And music in his ears his beating heart did make."

A sense of utter tranquility ensues, an indescribable calm, a feeling of perfect contentment in mind and body, a languorous sense of ease, entire comfort and slight faintness. Lulled in this statuesque repose there is not the slightest inclination to disturb it by the least movement,

and the person lies entirely passive to all surroundings. Largely determined by the mental status of the individual, thoughts pass through the mind like phantoms, but they come unbidden and without conscious effort; these are not original, but simply repetitions of what is already known, and only pass in review before the now quiescent intelligence.

Occasionally attempts are made to converse, but these are carried on without expectation of reply, the continuance of sentences becomes more and more interrupted, and finally they cease altogether.

Hallucinations and visions present themselves more or less vividly to the mind, according to the temperament of the person now steeped in bliss, who views the numerous images with passive pleasure. In some persons these phantoms are of a rapturous, artistic character, in others they partake of an amorous nature, or again they may take the form of objects in gentle swaying motion. Thus, an illimitable field of ripened grain may present itself to the imagination, waving in long and graceful undulations as if moved by gently going breezes, or vessels seem to sail with sluggish ease over a softly swelling sapphire sea.

Such fancies are among the seductive influences of opium, such the mocking delights of "mudjoon."

Gradually this state of ecstasy passes into that of unconsciousness, from which it is difficult and often impossible to arouse the individual and even when this has partially been accomplished there is an almost immediate relapse into the comatose condition. The face is dark red, or bluish red in color and puffed in appearance, the eyes are protruded, glistening and staring and the pupils contracted; the latter are so greatly reduced in size that they are spoken of as the "pin head pupil." The muscles of the face are relaxed and the cheeks flap and puff with each inspiration and expiration. Respiration at this time is slow, deep and stertorous in character, and the skin is drenched in a warm sweat. From this state of narcotism consciousness slowly becomes reëstablished. The subject now becomes the victim of intense depression of mind and body. A feeling of exhaustion takes possession of every faculty with a general feeling of wretchedness in which every organ participates; this is present in all degrees from a transitory state of depression to actual despondency or a sense of utter desolation.

Under the influence of opium all mucous membranes

become dry and their special functions, viz., secretion or excretion are greatly, diminished; thus the saliva gastric and intestinal fluids, urine, milk, menstrual flow, etc., are all more or less decreased in quantity. Dryness of the mouth and throat is so great as to necessitate frequent drinking and often provokes vomiting. Alteration of tissue is not the property of opium but a profound derangement of function is manifested in the course of its action. This is especially noticeable in the nervous system, upon which this drug exerts a most deteriorating effect. A general state of exhaustion is experienced, an utter lack of energy and ambition, a languor from which it seems impossible to be delivered. Dullness, apathy and indolence of mind and body testifies to the extreme drain of nerve force. The moral faculties become so altered and perverted from the healthful standard that no dependence can be placed upon acts or statements; as an example of the degradation in the moral sphere, untruthfulness is a well-known characteristic of opium—in other words they become "chronic liars." There is also a lack of the sense of duty, conscientiousness, etc., and promises are made only to be broken.

An undefined sense of fear or fright, a haunting nameless dread or feeling of impending calamity is experienced by the individual day and night. Every sudden noise causes the whole body to start. Twitchings of the muscles take place in the face, hands and feet, or a general tremulousness manifests itself in all the extremities, subsultus or localized twitchings may also present themselves; convulsions, clonic, tonic or opisthotonic also occur and the convulsive attacks are followed by deep and prolonged coma.

Muscular irritability is greatly impaired, and there is also decided relaxation in this tissue, manifested by general inertia or a shuffling, shambling gait. Involuntary muscular fibre is affected in the same way; this is shown in the sluggish peristalsis of the intestine and the diminished contractibility of other hollow organs. Opium causes acute cramp-like or darting, shooting pains of neuralgic character in various parts of the body, and they are often persistent. This explains why opium is able in many instances to relieve such pains by means of its homœopathic action, though often blindly prescribed for its benumbing influence.

The sluggish condition of mind and body engendered by opium has already been mentioned. The gradual deterioration of brain and nerves, the deadly lethargy that

seizes upon the entire intellectual, moral and physical nature, in time utterly transforms and extinguishes the personality, while it degrades the body of the habitual user of poppy extractives.

Opium sails under the black flag of piracy, and, like the freebooter's craft, assumes the peaceful guise of a friend, only to rob its victim of all his natural endowments; the circulating blood, the color of the face, lips and tongue, dejections from the stomach and bowels, secretions, excretions, etc., all adopt the black hue of the pirate's banner, while "black melancholy" exhibits the total wreck of the moral and intellectual spheres.

The stomach fails to note the promptings of appetite; sometimes there is an actual aversion to food. Although loss of appetite is the rule this is replaced after a length of time in a certain proportion of cases by a morbid craving or "gnawing" in the stomach. Digestion is imperfectly performed on account of the insufficient and defective physiological fluids. Cramping pain is experienced in the stomach and sometimes in the œsophagus, and gastralgia is not uncommon. Colic pain is present in the abdomen either as a pure enteralgia or is due to excessive distention with gas, to which the intestines are quite subject; the colic pains are similar to those caused by lead poisoning, for which opium is often curative. Insufficient innervation of the muscular walls of the intestines leads to such a diminution in the peristalic movement of the intestines that constipation is one of the certain effects of this drug, though the specific dryness of the enteric mucous membrane, also induced by opium, contributes its share toward fæcal retention. Paresis of the rectum has the same character that is manifest in other muscular organs and presents the same insensibility to stimulus. Advantage is taken of this fact by rectal surgery when it becomes necessary to restrain the natural peristalsis that would be apt to interfere with healing processes. Irregular, spasmodic contractions resulting in intussusception of the intestine has frequently found a remedy in opium. The constipation caused by opium is persistent and difficult to overcome. Through deficiency in bile the stools are often clay colored or gray in color, but as a general rule the stools are hard, formed in lumps or balls and blackish in color. Diarrhœa is also an effect of opium, though generally following upon continued constipation; the stools in this case are very watery and black

in color, occasionally involuntary, sometimes attended with spasm and tenesmus at the anus. Suddenly suppressed diarrhœa followed by coma, is an indication for opium. The lungs participate in the sanguine tide instituted by oipum, and decreased oxygenization with difficult respirationis soon made evident. The dark red or bluish reddened, puffed face, slow labored intermittent and puffing breathing, presents a picture of asphyxia and testifies to the accumulation of carbonic acid in the blood. When in addition to the foregoing, snoring respiration, stupor and profuse sweating are present, one cannot fail to be struck with the close resemblance that opium poisoning bears to cerebral apoplexy, and indeed numerous cases are on record where attenuated opium has proved to be the successful homœopathic remedy for this disease, to which I am able to add my own testimony. Sometimes the effect of opium causes excessive dyspnœa, or respiration assumes a long sighing character, and laryngeal and bronchial inflammation of low grade is not of infrequent occurrence. Dry cough of a tickling, racking character lasting some minutes occurring day and night and temporarily relieved by a drink of water, is characteristic of this drug, and explains why cough syrups containing opium are often homœopathic to the case, though given in ignorance of this fact.

Itching of the skin is a result of opium even when administered in minimum doses, and is often excessive and extremely irritating. It also produces a general erythematous redness of the skin extending over the whole body; also a fine miliary eruption that may or may not be reddened. The color of the skin is dark or bluish red or lead color. Even hives have followed its use. The skin is sallow and sometimes jaundiced, the features are relaxed and seem to hang down. Mention has already been made of the profuse perspiration that bathes the skin as a cause of opium; it is, however, quite free, lasts for hours and is warm in character. In the "opium-eater" it is darkened by the excretion of the drug, and stains the underclothing. The sexual function is greatly stimulated by the use of opium; this is common in both sexes, but after a variable period the activity of this function gradually decreases, and is finally lost in complete impotence. Procreative power in both sexes is very greatly diminished, and often absent; when children are born they are apt to be feeble, and do not long survive, while those who do, inherit the vicious propensities characteristic of opium.

Miscarriage is of frequent occurrence. The menses are as a general rule increased in quantity for a time, but become irregular, scanty or wholly suppressed at a later period. Heart and pulse for a short time are increased in fullness and force, but diminish in strength and frequency, until they fall to the normal or below it. While the circulatory erethism lasts, carotids throb and jugulars are distended.

The wall of the bladder is affected in the same manner as the intestine, viz., a paretic condition of the muscular coat and the accessory muscles. Expulsion of urine is slow and tedious, and it is often necessary to wait a considerable length of time before it commences to flow; occasionally the stream is interrupted and a period of waiting has again to be allowed. Cramp pain is felt at the neck of the bladder like that experienced in the rectal sphincter, or tenesmus of the sphincter vesicæ may inflict its sufferings. Involuntary urination may also take place. Sight and hearing become intensely acute, objects seem unusually well defined and sounds are heard distinctly even when beyond the ordinary range. Both of these functions, however, are perceptibly dulled at a later period. Sleep, sometimes profound, is often a half wakeful state and not infrequently of a delirious character in nervous sensitive organizations. On the other hand persistent wakefulness is one of the consequences of this drug. Intermittent fever has been induced by opium, and it has been therapeutically employed in India frequently and successfully in the treatment of a number of these cases; when associated with coma, full slow pulse, dark red face and stertorous breathing, it is useful in the "congestive chills" of our own country.

In an epidemic of typhus in St. Bartholomew's, London, quite a number of years ago "it was a daily occurrence to find that a patient who had been without sleep for several nights, whose whole frame was in a state of tremor, actuated by some erroneous idea, and constantly endeavoring to get out of bed, falls into a tranquil slumber on taking a dose of opium, and awakes refreshed and conscious after several hours of calm and gentle sleep, during which the secretions will often be restored, the tongue becomes moist and a warm perspiration breaks out."

The unconscious practice of homœopathy in the foregoing cases needs no comment.

Clinical Society Transactions.

CORNELIA S. STETTLER, M. D., Corresponding Secretary.
ORRIN L. SMITH, M. D., Recording Secretary.

SEPTEMBER MEETING, 1897.

The regular monthly meeting of the society was held in the Hahnemann College amphitheatre, September 25, at 8:30 P. M., President Crawford in the chair.

REPORT OF THE SECTION IN SURGERY.

A. L. BLACKWOOD, M. D., Chairman.

XLIX. Clinical Cases. By Dr. G. F. Shears.—I have to present to you to-night, as my report, three clinical cases, with specimens, each of which possesses, I believe, certain special points of interest.

Gallstones impacted in the cystic duct; cholecystotomy and removal of the stones; recovery.—*Case 1.* Mrs. J. V. S., sent to the Hahnemann Hospital by Dr. Crippen, of Waterloo, Iowa, with the following history: The patient is thirty-five years of age, married, and has had severa children. One evening four years ago she was seized with a severe pain in the stomach. She had been eating rather freely of chicken and believed the attack to be one of indigestion from this cause. One week later she ate chicken again, and had another attack of pain following. Although she has since refrained from eating chicken, the attacks have been frequent. They have never been accompanied by vomiting. The pain is always intense, and will not disappear until relieved by hypodermics of morphia. Pain and soreness remain for several days after the attack. At no time has there been fever or jaundice. During the past year a hard lump has been felt in the right hypochondriac region at the time of the attack of pain, and for the last four months this lump has never entirely disappeared. The attacks have recurred almost every week except during pregnancy. The first three months the pains were very severe, but during the remainder of the time she was free from pain. She has been fairly well except for the pain and a slight but troublesome cough, which remained after an attack of diphtheria.

Examination : Patient pale, face colorless, tongue pale and flabby, heart beat normal, pulse 110. On the right side below the tenth rib a slight tumor can be felt, but it cannot be circumscribed. It is tender to the touch, and can be moved toward the right flank. Her physician declares that during an attack of pain the tumor is more noticeable and more sensitive.

The paroxysmal character of the pain, the location, and the presence of the tumor led to a diagnosis of gallstones, and the lack of jaundice, the enlargement of the gall bladder and the deep character of the pain pointed to an obstruction more or less complete, of the cystic duct. A cœliotomy was made in the right semilunaris and a distended gall bladder the size of an egg presented. The liver was lifted up with the left hand, the stomach and intestines depressed with the right, and the course of the cystic duct traced. A stone could be felt in the gall bladder and another further down in the cystic duct. A trocar was inserted into the distended gall bladder and a mucopurulent fluid bearing little resemblance to bile, discharged. This opening was now enlarged and the first stone pressed out with the fingers. An attempt was then made to force the second stone up into the gall bladder, but it was too firmly impacted. The next attempt was to crush the stone within the duct by means of a padded forceps, but this was not feasible. An attempt to needle it was equally unsuccessful. Forceps were then introduced into the gall bladder and down into the duct until the stone was reached. These were spread wide apart and after several efforts the duct was dilated so that by means of considerable pressure from below, the stone was forced into the gall bladder and thus removed. The stones which I now present are about the size of marbles and almost perfectly spherical. In the manipulation the bladder was quite extensively separated from the liver and some hæmorrhage resulted. An attempt to control this by suturing the capsule of the liver was unsuccessful, and pressure was therefore made with a tampon of gauze. The gall bladder was then sutured to the parietal peritoneum, a drainage

tube placed in the bladder, and the wound in the abdominal wall closed. It is now the fifth day and the patient has a normal temperature and is doing well.

Two interesting questions arose during the operation: Was it wiser to indulge in considerable traumatism in an attempt to remove the stone through the gall bladder than to incise the duct, extract the stone and attempt to suture the duct; and was it best to suture the open duct to the peritoneum or to make an ideal cholecystotomy?

Believing that I could extract the stone through the gall bladder I preferred to risk the traumatism rather than the leakage from a sutured duct, especially as the discharge from the gall bladder gave evidence that the duct must carry muco-purulent matter which was in all probability, infective. For the same reason I preferred to suture the gall bladder to the peritoneum, fearing that a lacerated bladder might not be so safely trusted to hold a suture and that any leakage might result in an infective peritonitis.

The entire cessation of pain during the last six months of pregnancy I cannot explain. What conditions present during pregnancy would tend to prevent the return of the paroxysms I do not know.

HIP JOINT AMPUTATION; WYETH'S METHOD; RECOVERY. —*Case 2.* The patient, a man aged twenty-six, fell from a building on February 12, 1896. He was treated, he claims, for dislocation of the hip. Two months later, when he came to me, the hip was found to be badly inflamed, the whole leg shortened and the foot strongly inverted. An incision was made down upon the head of the femur and a fracture of the surgical neck discovered, the fracture being close to the head of the bone, the head remaining in the socket but the neck being turned away from it so that no attempt at union had taken place. On account of the length of time that had elapsed since the fracture and especially because of the inflamed condition of the soft tissues, it was thought best to remove the head from the acetabulum. (The specimen I now present for your inspection.)

Notwithstanding the utmost care, the inflammation never subsided and abscesses formed along the entire course of the leg, in the knee joint and ankle, both of which

showed signs of trouble at the time of operation. The abscesses were opened and drained until the thigh and leg were riddled with openings. The condition at last became such that, after consultation, it was decided that if his life was to be saved, amputation must be made at the hip. The patient was so weak that it was feared he would not survive the shock. A saline infusion was therefore made after he was placed upon the table, and the amputation made by the Wyeth's bloodless method, using the large mattress needles. The acetabulum was necrosed and pockets of pus found in several parts of the flaps. The diseased bone was chiseled away and the abscesses curetted and drained. The condition of the flaps rendered suturing

FIG. 15. FRACTURED NECK OF THE FEMUR.

impossible and they were therefore packed with iodoform gauze and left open. Two weeks later, the soft tissues having been cleansed and covered with granulations, the flaps were brought together by suture. The patient made a good recovery and I now present him to you, a picture of health, able to earn his living and to enjoy himself riding a bicycle.

The mortality of amputation at the hip is very great. In pre-antiseptic days it was estimated by Legonest at 87.7 per cent. In antiseptic days, Erdman in his statistical report of leading New York hospitals, places it at 34.4 per cent.

I believe this mortality could be materially reduced by the universal adoption of Wyeth's method of controlling hæmorrhage, and the use of the saline solution to prevent shock. At the present time hæmorrhage and shock are the two principal dangers. The former has been controlled more or less perfectly by compression of the abdominal aorta by compression of the common iliac through the rectum, by direct compressure of the iliac trunks intra-peritoneally, by preliminary ligation of the iliac or the femoral, by compressing the femoral over Poupart's ligament, by the finger, by direct compression after transfixion, and by other methods of a similar character, some of which I have used, but none are so simple and so effective as the method suggested by Wyeth.

Next to this I believe the stimulating effect of a saline solution is responsible for a lessened mortality by preventing shock. No other single method has given me so much satisfaction and such a sense of security.

ABCESS OF THE LIVER; HEPATOTOMY; RECOVERY.—*Case 3.* H. A. S., aged thirty years. On December 1, 1895, he complained of feeling indisposed, which condition remained for about ten days. On December 10 he had a violent chill followed by vomiting and fever. He was confined to the house for three days. At the expiration of this time, although not feeling strong, he returned to his business. On December 24 he had another chill, the temperature reaching 103°, the fever continuing for ten days. At the expiration of this time he was again able to be about. On January 22 he was seized with severe spasmodic pains in the region of the diaphragm, for the relief of which he was obliged to take morphine. During the week following his symptoms improved and his appetite became quite normal. When he was presented to me early in February he was thin, slightly jaundiced, with a temperature of 99½ and pulse of 96. The urine was loaded with bile and the stools were clay color. Inspection of the abdomen revealed a pronounced protuberance in the region of the liver, and percussion showed a dullness extending to the nipple line. A diagnosis of abscess of the liver was made, and an operation was advised.

As the enlargement was most pronounced about the

eighth rib an incision was made over the eighth intercostal space in the midaxillary line and the liver found to be adherent to the abdominal parietes. An incision was made direct into the liver substance and almost a quart of pus discharged. In order to make more perfect drainage a portion of the eighth rib was excised and large rubber tubes introduced as drains. The patient made a rapid recovery and is now, over a year and a half after the operation, well and strong.

I report this case as an evidence of the successful results that may follow prompt surgical interference, and also that I may contrast it with another case in which the liver abscess was evacuated without operation.

This patient whom I now present came to my clinic on Wednesday last, upon the advice of Dr. Stettler, to see if any operation could relieve him of the distressing cough and expectoration.

Case 4. Over a year ago this man had an abscess of the liver, which finally ruptured, discharging through the right lung. For a long time his life was despaired of. In January last he had sufficiently recovered to present himself, upon Dr. Stettler's advice, to Prof. Arnulphy, who examined him and confirmed Dr. Stettler's diagnosis. (See the CLINIQUE for March, 1897.) While much improved, he is still in a miserable condition; is weak, coughs frequently, and expectorates about a pint of muco purulent matter every twenty-four hours. When I first saw this case and noted the amount of expectoration I thought we might find evidence of a pus cavity of some size in the liver. If this proved to be true I hoped that a direct drainage through the abdominal cavity might relieve him of his distress, and by producing another channel for the pus, remove a constant source of lung infection. After careful examination I failed to find evidence of a liver abscess. I called Prof. Arnulphy in consultation. Although he gave the man a careful examination, he failed to find evidence of the presence of an abscess, and expressed the belief that the cavity had been obliterated, and that the expectoration is due to infective bronchorrhœa. The cure is almost as bad as the original trouble.

It must not be understood that the two cases reported are exactly alike. In the former the abscess presented

toward the abdominal wall, and was therefore easily accessible. In the latter case it probably presented toward the diaphragm, and would therefore have presented more difficulties in the way of operative interference.

Abscess of the liver which is not due to gallstones or to pyæmia, the multiple or pyæmic form, is comparatively rare in cool climates, and for this reason the treatment by operative methods has not been as general as is warranted by the good results obtained in the few cases so treated. Expectancy, or at most aspiration, has been the usual form of treatment. In a few rare cases, as in the one last reported, evacuation of the abscess may take place through some of the natural channels, as the lungs, the stomach or the intestine, and, more rarely, through the abdominal parietes, but in almost every case not until irremediable damage has been done. Aspiration has proved to be not only inefficient, but to be accompanied by serious risks. In many cases so treated suppuration has taken place along the course of the needle, or the cannula, or a leakage of pus into the pleural cavity, or the peritoneum, has followed, resulting in an attack of septic peritonitis or pleurisy. Most of such cases prove fatal. The results of the last few years' work in hepatic surgery warrant the statement that whenever an abscess is diagnosed in the liver a free incision should be made into the abscess cavity, so that the purulent matter may be evacuated through an opening at the surface of the body. It is not my intention to enter into a full discussion of this subject, but simply to call your attention to the claims of surgery in this class of cases.

Dr. BRUCE: I have nothing to offer in the line of surgical discussion, but Prof. Shears' excellent paper brings to my mind a very peculiar case of gallstones which came under my care last winter:

Case. I was called about three o'clock one morning to see a gentleman about fifty-five years of age, who was suffering from a severe pain in the stomach. I tried all of the usual methods for relief, but the pain only increased and to such an extent that it was impossible to keep the

patient in bed. There was no history of indigestion or any trouble from taking food after dinner the evening before. There was no vomiting of the medicine taken nor any evidence that the stomach repelled it. I got a history of a similar attack some fifteen years previous, and no less an authority than Dr. N. F. Cooke then gave a diagnosis of stomach neuralgia. I have been taught to be a little skeptical of that diagnosis, but all of the pain was over the central portion of the stomach, and there was no pain or tenderness anywhere else. It took one and one-half grains of morphine hypodermatically to make any impression on the patient. About two o'clock the following afternoon another paroxysm of pain came on worse than any of the previous ones. I was sent for in a hurry, and on arrival the patient was comparatively comfortable and very sleepy. Just before going off to sleep he passed some eight ounces of urine that was full of bile. In three hours he was about the color of a pumpkin and decidedly tender all over the region of the liver; no pain in stomach. I changed my diagnosis at once.

CASES REPORTED BY DR. CHAS. E. KAHLKE. 1. A CASE OF SPREADING TRAUMATIC GANGRENE FOLLOWING CRUSHING INJURY OF LEG.—C. D., man, æt. twenty. Shortly prior to entering hospital patient was thrown under a train, the wheel passing over left ankle.

Examination one hour after the injury revealed a comminution of lower inch and half of tibia and fracture of tip of fibula with great laceration of soft parts surrounding ankle joint and tarsus. All the tissues above the lower three inches of the leg seemed perfectly sound. Patient's general condition good; pulse full, regular and strong; practically no shock.

Operation. The limb was at once prepared as high as the middle of the thigh, and amputation performed at junction of middle and upper third of leg, long anterior and short posterior flaps being used. A large rubber drain was inserted and wound closed with silkworm gut stitches. Anæsthetic, chloroform. The operation lasted thirty-five minutes. As patient was put to bed in excellent condition, no stimulation was required.

Results. Pain most intense first two days after operation; enormous amount of bloody serum oozing from the first. Drain removed on second day, but oozing continued, ready exit for fluid being found at site of former drain.

Temperature first two days 100-102°; pulse 100. On account of temperature and pain in stump the latter was inspected at the end of forty-eight hours, but was found in an apparently good condition; wound still discharging freely; slight sour odor to dressing. On the third day the pulse ranged from 95 to 122; temperature 100-103°; pain much less; leg emitting strong odor; tongue coated; breath foul. Examination of stump revealed a patch of gangrene the size of a man's hand and as black as coal on the anterior flap; stump distended; no discharge; marked emphysematous crackling about and below knee. Stitches removed at once. As soon as the first stitch or two was removed the gas escaped with such force as to give forth a hissing sound.

Diagnosis. Spreading traumatic gangrene.

Treatment. On account of his septic condition patient was at once transferred to another ward, where he was immediately placed under the influence of chloroform and a secondary amputation performed, this time at the middle of the thigh, as tissues here seemed good. After the amputation, however, a careful inspection of the wound surface revealed an extension of the septic process even above this point. This was manifested by a dark area of pigmentation in the areolar connective tissue on anterior and outer portion of thigh. The breadth of this area of discoloration, which could be clearly outlined, was about fou inches in this region.

On account of the mortality accompanying disarticulations at the hip-joint, and on account of the patient's vitality being already lowered, we decided to amputate in the upper third and endeavor to clear the pigmentation area by making a long flap on the inner and posterior aspect of thigh and a simple semi-circular incision on the anterior and outer aspect. This, fortunately, cleared our visible line of danger by two and one-half inches.

The surface of our present wound was then treated with a 5 per cent sol. of carbolic ac.. this being rinsed off by sterilized water. Large iodoform gauze drain inserted and wound closed with silk-worm gut stitches.

Results. In a few hours patient's temp. dropped to 99° and pulse to 80°; shortly afterward to normal, all septic symptoms disappearing. Recovery uneventful. With the exception of a small stitch-hole abscess the wound healed by first intention.

Dissection of the amputated portion of limb revealed a typical condition of gangrenous emphysema.

2. OSTEO SARCOMA OF THE HUMERUS.—Mary T., Arabian beggar, 65 years of age. Through an interpreter, we learned that four years ago, patient had received a fracture at upper end of left humerus. More or less disability, but no suffering resulted until two months ago, when a rapidly developing and exceedingly painful tumor made its appearance at the site of the old fracture. The pain was so intense that patient could obtain no rest, either day or night.

Examination now reveals a tumor at upper end of humerus, projecting for the most part into the axilla, but extending also anteriorly and posteriorly. The diameter of the growth is seven inches. The overlying skin adherent and the superficial veins distended. Motion only slight. The growth itself is not so tender, but the pain referred to the terminals of the brachial plexa is so intense as to make life a veritable Hades. Patient is bowed with age and markedly emaciated. No visible metastasis, although cough, (which patient says has never been noticeable); general dullness on percussion over thorax and somewhat diminished vesicular murmurs lead us to think of secondary deposit in the lung.

Diagnosis. Osteo-sarcoma.

Treatment. As morphine gave absolutely no relief, we decided to disarticulate the arm at the shoulder, merely as a palliative means, and not with any idea of arresting the progress of malignancy in a locality like this.

Operation. After the administration of one-thirty-second grain of strychnia, patient was placed under the influence of chloroform, to the first few inhalations of which she nearly succumbed. This latter occurrence strengthened our suspicions of pulmonary metastasis. The disarticulation, including ligation of vessels, section of nerves, and suturing of wound, was completed in 15 minutes, the hæmorrhage being controlled by digital compression of the sub-clavian vessels against the first rib. Operation practically bloodless.

The growth was confined mostly to the head of the humerus, the outlines of which had almost disappeared; so, by keeping close under the acromion and clavicle, and keeping close to the ribs, we succeeded in excising the whole mass. The flaps necessarily consisted principally of skin.

Patient put to bed pulseless, but, after active hypodermatic and rectal stimulation for the next forty-eight hours, a good reaction set in.

Results. Uneventful recovery; stitches removed on seventh day; good union, except at one point where a suppurating sinus resulted from an infected ligature. This, however, granulated up promptly. Patient upon tenth day, out of bed, free from pain; sleep restful.

Gross section of tumor presented a reddish-gray surface of rather firm consistence, containing here and there small spiculæ of bone.

Microscopic section revealed small, round and spindle-celled sarcoma.

Three weeks after operation a small, painful tumor began to develop on tip of tongue (where artery forceps had been applied during anæsthesia), and rapidly enlarged for two weeks, at the end of which time the patient died.

Post-mortem. No recurrence at shoulder; sarcoma of tongue size of walnut; deposit in right side of thyroid; extensive involvement of both lungs, the surfaces of which were raised in colored nodules and thickenings; large growths in posterior mediastinum; old empyema, left pleura containing one pint of oily fluid. Liver negative.

Discussion. Dr. Chislett: I knew of a second such case that happened within a year from the date of the first one, in which the application of an artery forceps to the tongue was followed by the development of a sarcoma at that point. It is a clinical fact that patients suffering with axillary sarcoma very frequently have difficulty in taking chloroform on account of pneumonic infiltration. In response to Dr. Shears' question I should like to say that the tongue-forceps could in no way have been infected.

Dr. Shears: I have never seen any such effect, and I have pierced and placed a ligature through the tongue time and again.

Dr. R. Ludlam: It has been my experience that there is no need for the tongue forceps if the anæsthetic is properly given. I used always to carry them with me to an operation, but for the past ten years have discarded them altogether. My conviction is that as a rule too much chloroform is given in all kinds of surgery. Not once in twenty or thirty laparotomies for cause does anybody hear one of my patients snore, and the old-fashioned surgical narcosis is unknown when I am in command of the case.

LI. Clinical cases. By Dr. Howard R. Chislett. Dermoid cyst of the broad ligament.—*Case 1.* Mrs. G., aged twenty-nine. Family history negative, personal history good. Though rather slender and delicate, this little patient considered herself perfectly well up to the time of her confinement. Had gone through the nine months of gestation without an unpleasant symptom and not until the arrival of her physician to attend her during the birth of the child was she conscious of any abnormality. Until her conception her menstruation was perfectly normal and at no time had she suffered pain or fever. When the physician arrived there was already partial dilatation of the cervix, and first position of the head was easily diagnosed. There was, however, an enlargement apparently to the right and behind the cervix which the head of the child seemed to force further into the vagina and which proved to be a serious obstacle to normal delivery. The physician, Dr. Maguy, administered chloroform and endeavored in every way to displace this growth so that with the forceps he could deliver the living child. Finding this impossible and the dilatation now being complete, he did a craniotomy and relieved the poor little woman of her suffering. The patient made an interrupted recovery and six months later was brought to me for examination. The examination at this time revealed a uterus normal in size, position and mobility. Left tube and ovary perfectly normal. On the right side was a firm growth about the size of a large apple, located apparently between the layers of the broad ligament. The right ovary could be pushed in front of the tumor and appeared normal. The right tube could not be outlined. The patient being anxious to have a child, readily consented to an operation for removal of the growth.

Operation. Central incision four inches long exposed what appeared to be a fibroid tumor in the right broad ligament. The broad ligament was incised from the uterus to the pelvic wall and the tumor enucleated. The growth was so firm that it was not until we had almost separated it from its adhesions that it showed any indication of fluid contents. When separating it from the deep pelvic fascia there was an escape of a drop or two of a thick, yellowish fluid. This was carefully wiped away, the parts sterilized by sponging with bichloride solution and the wound in the broad ligament closed by a continuous suture of fine catgut. Both ovaries and tubes were found perfectly normal,

the wound was sutured without drainage and the patient put to bed. The recovery was uninterrupted, the patient leaving the hospital at the end of four weeks. The specimen which I bring for your inspection is undoubtedly a dermoid cyst, the contents being that peculiar atheromatous material seen in the simplest form of dermoids elsewhere. Of the origin I am still in doubt, but as the ovary and tube were so perfectly healthy and in nowise connected with the tumor it seems to me probable that it is one of those post-rectal dermoids described by Sutton.

ACUTE APPENDICITIS; GANGRENE; DEATH.—*Case 2:* Mr. C. R., aged twenty-one. Referred to me by Dr. A. F. Harris, of this city. This patient had had several attacks that he termed "stomach trouble" during the past few years. Many times they were of so light a nature that he paid no more attention to them than to say to his mother, "I have the stomach ache," and then go and lie down for an hour or so, when the colic would subside. This last attack began in much the same way, but the methods usually employed proved ineffectual. The pain became more acute and vomiting supervened. Constipation was obstinate. The temperature, at first in the neighborhood of 100°, gradually rose as the other symptoms increased in severity. The pain became extreme, and instead of being diffuse was soon located in the right inguinal region. The vomiting became incessant, tympanitis became a marked feature, and the temperature on the third day of the attack climbed to 105½°. When I saw the patient with Dr. Harris on the morning of the fourth day, his facial expression was anxious and drawn. He was rolling about the bed, groaning, and vomiting about every thirty minutes. The abdomen was greatly distended, tympanitic everywhere save in the right inguinal region and the right lumbar region, just above the crest of the ilium, where there was pronounced dullness. There was marked muscular rigidity in the right side of the abdomen and exquisite sensitiveness over the region of the appendix and cæcum. Temperature at this time was 103°, pulse varying from 120 to 140 beats per minute. The patient was transferred to the hospital and prepared for immediate operation. The abdomen was opened through the right semilunar line, the center of the incision corresponding to the point of greatest sensitiveness—McBurney's point. A distended and inflamed colon presented at the opening.

Following this down, and pushing aside the coils of intestine, pus was seen free in the abdominal cavity. Separating the imperfectly formed adhesions (for nature had shown little effort to limit the spread of this inflammation), the appendix was reached and with difficulty enucleated from its attachments beneath the cæcum. It was found to be perforated in several places and gangrenous for about an inch from its cæcal attachment. Indeed, the gangrene did not stop with the appendix, but extended for three quarters of an inch on to the cæcum. After ligation and removal of the appendix, this diseased portion of the cæcum was invaginated and retained in this position by a continuous Glover's stitch. The purulent matter was carefully wiped out and an effort made to sterilize the abdominal cavity with hydrozone. The use of hydrozone was followed by irrigation with several gallons of hot normal salt solution until it seemed that the peritoneal cavity must have been free from infectious material. The patient was put to bed in very feeble condition, and for a few hours the shock seemed extreme. Stimulation with strychnia and the external application of heat produced good results, and twelve hours after the operation the patient was doing very well. Four hours later the vomiting began again, and in spite of stimulation the pulse grew notably weaker and more rapid. The temperature, too, began to rise and the patient became very restless. At this time I gave him an intravenous injection of a quart of hot salt solution. The effect upon the pulse was magical, but very transcient. In a half an hour he was as bad off as before. The vomited matter how became of that black, septic character, the patient's color became ashen gray, and he gradually sank, dying twenty-one hours after the operation from septic peritonitis. The specimen which I bring for your inspection contains, as you will notice, four distinct perforations. In the opening of the largest of these you will see a distinct ball of hardened fæcal matter. The parts which in the preserved specimen appear white are those which were gangrenous in the fresh specimen.

CHRONIC APPENDICITIS COMPLICATED BY GALLSTONES.—*Case 3.* Mr. S., aged about forty, German. This patient was referred to me through the courtesy of Drs. Hubbell and Newbold. Until two years ago, he had been perfectly healthy, but when lifting a calf over a stile felt a pain in the right side about the level of the umbilicus. He has

been ailing ever since with recurring attacks of this pain. During this first attack and in the early months of his illness he was considerably jaundiced and the pain was referred mostly to the region of the gall bladder and liver. For the past year, however, the attacks have been different, the pain being lower in the abdomen, the attacks unattended with jaundice and the point of greatest sensitiveness being directly at McBurney's point. The tenderness at this point never entirely disappears. A careful analysis of the case had led his physicians to a diagnosis of chronic appendicitis, a diagnosis which I confirmed. The abdomen was entered at the outer border of the right rectus and the appendix found standing up almost straight, being very firm and fibrous from cellular infiltration. The appendix was easily removed and the stump inverted into the cæcum. Inasmuch as there had been a suggestion of gallstones and the condition of the appendix seemed hardly severe enough to have disabled him for two years, I inserted my fingers to examine the gall bladder and found it full of small calculi. As the stones all seemed small and the distention was insufficient to suggest an obstruction of the cystic duct, I sutured the gall bladder to the abdominal wound, leaving it to be opened at the end of forty-eight hours. This I did for the protection of the lower part of the incision, being anxious to avoid suppuration of the wound and consequent danger of ventral hernia. The gall bladder was opened by Dr. Newbold seventy-two hours later and ten days later, a letter from him contained this sentence: "Up to this time have got 270 or more stones, little and great. There was considerable hæmorrhage after removal of the large ones, as they seemed to be encysted." My last report stated that the wound was healed entirely, the patient up and around but still having some pain and bloating. I thought from the description that the latter was due to intestinal indigestion and since recommending predigested foods and foods assimilated especially by the stomach, I have not had a report, so conclude that he is getting along all right.

LII. Prognosis in fractures. By Dr. A. L. Blackwood.—Although great advancement has been made in all departments of surgery, the time has not arrived when a fracture can be said to be more of an inconvenience than a misfortune.

We divide them into simple and compound, but fre-

quently, before through with them, we have confounded the simple.

In the treatment of every fracture four questions present themselves.

1st. Is the life of the patient endangered?

2d. Can the limb be saved?

3d. The degree of usefulness, if saved?

4th. The length of time required for the restoration of function?

Each of these questions deserve attention, but I pass on to consider the prognosis of fractures under two heads.

1st. The patient.

2d. The fracture.

THE PATIENT. *Sex.* From my observation I am led to believe that sex has but little or no influence on the prognosis.

Age. The rule is the younger the patient the more favorable the prognosis.

The fractured bones unite more readily; the permanent deformity is less; in compound fractures the process of repair is much more rapid and should resection be demanded, the reproduction of bone tissue is generally assured. The exception to the rule is found in the interarticular fractures, when the reduction may not be perfect and there is excessive formation of callus.

In the aged, a fracture is a serious accident, such patients being less able to withstand the shock incident to the injury and confinement to bed. The latter is an especially important element in the prognosis. As a result of the confinement their condition may be greatly agravated by disturbances of nutrition and lung complications may also arise which frequently threaten the life of the patient. Their joints are more liable to become ankylosed and the structures about the fracture to remain engorged and rigid. Fractures of the wrist and neck of the femur are common in this class of patients and they are always attended by more or less deformity and permanent disability.

The general condition of the patient appears to have but little influence so far as the repair of the fracture is concerned, though syphilis, scurvy, or an acute intercurrent disease may delay and sometimes prevent union altogether.

Paralysis may or may not effect the process of repair, according to whether or not the trophic centres of the cord are involved.

THE FRACTURE.—An item of importance under this head is the force producing the fracture, was it direct or indirect?

If from direct violence, there must be more or less contusion of the soft parts, which are liable to pass on through the various stages of inflammation and terminate in suppuration.

Should it have been some severe force of a crushing nature producing the injury, splintering and breaking the bones into small fragments, this will affect the prognosis in a marked degree.

Fractures due to gunshot also are usually of a serious nature.

The shock, the length of time required for repair in some cases, the depth of the bone beneath the soft structure rendering efficient drainage difficult, and the consequent danger from suppuration, all contribute to render these an undesirable class of cases.

What I have said in regard to gunshot fractures will apply to compound fractures in general.

In all, the process of repair is slow, the complications many, and may assume grave aspects, and the time the limb can be said to have regained its normal function is always remote, ofttimes never reached

The importance of the prognosis in some fractures is measured by the involvement of certain structures or organs enclosed by the fractured bones; as the brain in fractures of the cranial bones, the cord in fractures of the vertebræ, and some of the abdominal and pelvic organs in fractures of the pelvic bones.

The size and structure of the bones involved also plays an important part in the prognosis. The time required for the repair of a small bone is much less than for a large one. Spongy bones unite more quickly than those of a more compact nature.

The subject of shortening of a limb after a fracture is one that has caused a great deal of discussion.

From my experience I believe shortening to be the rule in fractures of the long bones, especially if the line of fracture is oblique, or in a multiple fracture of the same bone. Should the line of fracture be transverse, or the bone fractured one of two parallel bones, there will, in all probability be no shortening of the limb.

In fractures of parallel bones there is always the possibility of union of the callus and impairment of function of the limb especially of the forearm.

Fractures involving the articulating surfaces of bones are liable to be followed by unfavorable conditions, such as suppuration, caries, chronic synovitis, non-union and more or less permanent disability. In such cases as these the prognosis should be guarded.

DISCUSSION: Dr. SHEARS: Dr. Blackwood's paper is valuable as showing the conclusions of one who has had abundant experience with a class of cases which probably is the source of more anxiety to the surgeon than any other that he is called upon to treat. The abdominal surgeon makes his operation and the patient either recovers, to the great credit of the surgeon, or she dies. In the latter case in time the case is forgotten, while a patient with a fracture in which the result is not good does not die but is a constant menace to his surgeon. Unfortunately the surgeon who has done all that good judgment and skill can do is not always exempt from legal complications. The laity are often poor judges of the conditions necessary to good results, and ignorance or cupidity often leads them to demand the impossible. The conclusions of Dr. Blackwood as to the imperfections so liable to follow should be impressed upon the surgeon, and by him upon his patient.

Dr. C. E. KAHLKE: The prognosis of fracture frequently depends upon our ability to overcome the displacements produced by powerful muscles in the case of oblique fractures in such a bone as the humerus. This point is well illustrated in a case that I recently saw with Dr. Halphide.

Case. The man, Mr. J. G., æt. about forty-five, weight about 175 pounds, was knocked from a street car, striking on left shoulder and arm. An examination under chloroform at his home one hour later revealed a double fracture of the left humerus. The upper fracture was at the surgical neck, the lower just below the deltoid insertion. The displacement was marked. The upper end of the middle fragment was drawn inward by the pectoralis and teres major and the latissimus dorsi. The lower end of the same fragment was drawn upward and outward by the deltoid, thus placing the middle fragment at an angle with both upper and lower fragments. Of course the lowest frag-

ment was drawn markedly upward by the biceps and triceps. It was impossible to get all three portions in a line except by firm extension and counter-extension in the position of abduction. The arm was kept in this position one week through the agency of a triangular splint fitted into the axilla. At the end of this time a plaster of Paris cast was applied from the hand up over the shoulder and around the neck.

Though a very painful neuritis of the musculo-spiral developed six weeks later and persisted for some time, the results were excellent, slight deformity being detected only on palpation. Function was thoroughly restored.

LIII. NOTES ON THE TREATMENT OF MAMMARY ABSCESS. BY DR. C. F. BARKER.—Acute mastitis occurs oftenest during lactation. This inflammation can generally be dispersed even after the breast is considerably swollen, reddened and painful.

At this stage of the disease I have little confidence in the curative effects of either hot or cold applications or in attempts to draw the milk artificially, though these measures sometimes aid, if applied early enough.

My own best success has come from the employment of belladonna internally and externally. Externally, the ointment, or the fluid extract diluted one-half with glycerine, are efficient. Internally the 1x dilution every half hour. Belladonna temporarily arrests the secretion of milk. It is much more logical to do this than to keep drawing the milk away and permitting the engorgement to go on; especially as drawing the milk artificially cannot always be gently done, and the gland is usually more irritated than soothed by the process.

After suppuration has actually occurred the belladonna is still useful in limiting the inflammatory area, but of course when we are sure that pus is present there is only one rational course to pursue. A free opening must be made and drainage established.

In deep-seated (intramammary abscesses) it is often a good plan to locate the pus by means of a large hypodermic needle. If no pus can be found in this way, postpone the incision and continue the belladonna.

In traumatic and other forms of mammary abscess, occurring independently of lactation, belladonna is of no special value.

In opening an abscess here, or elsewhere, it is perhaps

needless to remark that the surface should first be rendered thoroughly aseptic for some distance around the proposed incision.

Having prepared the field, select the spot and inject 10 to 15 drops of a 4 per cent solution of cocaine beneath the integument.

If the abscess is superficial a very shallow incision through the skin and cellular tissue will answer the purpose, but in deep-seated abscesses I often resort to the method suggested by Hilton twenty years ago for opening deep abscesses of all sorts. An incision is made through the integument and the superficial tissues beneath, and then the knife is laid aside and the deeper structures are penetrated with some suitable blunt instrument. A grooved director first, and as soon as pus or serum appears in the groove, push a pair of closed dressing forceps or a similar instrument along the groove until the pus centre is reached, then spread the blades and withdraw them, thus crowding the glandular tissues to each side.

The advantages of this method in opening a deep abscess are (1) one avoids the hæmorrhage that sometimes is very troublesome in more rapid cutting, (2) the opening thus made is less inclined to close and is more free than a clean cut wound, (3) the lactiferous ducts are less liable to injury or occlusion, since, in any free incision, radiating from the nipple or not, some of them must be cut across.

A strip of iodoform gauze packed loosely into the cavity and left protruding from the wound makes the best drain.

After drainage is established the breast must be liberally covered with aseptic absorbent material (preferably gauze and over this cotton), and then uniform pressure applied by strips of adhesive plaster or by a spica bandage. To my own mind, judging simply from my own experience, the spica bandage is the ideal means of applying and maintaining pressure here—far superior to adhesive straps or to any other means of support, both as regards comfort and efficiency. It is applied as follows: Take a 2½ or 3 inch cotton bandage 10 or 12 yards long for one breast (or 14 to 16 yards long for both breasts), and place the free end of this upon the angle of the scapula of the affected side and then carry the roller over the shoulder of the sound side and on down beneath the affected gland back to the place of starting. Make another complete

turn directly over this one until the lower border of the breast is again reached, then pass the bandage circularly around the chest, beneath the opposite gland, intersecting the first turn a little outside the line of the nipple. From now on alternate the oblique turns over the shoulder and the circular turns about the chest, gradually overlapping each turn upward over the affected breast until the whole gland is neatly and firmly covered in, letting the angles of each intersection lie in a straight line upward a little outside the line of the nipple.

At all stages of suppurative or of threatened suppurative inflammation of the mammæ, a uniform and rather firm pressure applied in this way is a very essential feature of the treatment. The value of this measure cannot be too strongly emphasized, and for the following reasons: (1) It greatly relieves the pain and gives comfort to the patient. (2) It reduces the vascularity of the gland, by partly shutting off the blood supply, thus diminishing the inflammation. (3) If pus is discharging, holding the gland firmly against the chest wall compels the pus to seek its opening, and it does this even when the place of exit is not at a dependent portion of the gland. (4) The abscess walls are brought together and in a few days become united by adhesion.

To obtain the best and quickest results, the bandage and the dressings should be applied daily.

In neglected or badly managed cases, as well as in those that present themselves to the surgeon early, it is wonderful what favorable results can be obtained from the proper application of dressings and pressure in the manner described.

Case. A few months ago a large Bohemian woman, thirty years of age, presented herself at the clinic with extensive suppurating inflammation of the right mammary gland. A baby eleven months old was still nursing the left breast. The abscess had formed when the child was five months old; so here we had suppuration of six months' standing. The mammæ in this woman were naturally very large and pendent and the affected gland was swollen, indurated and purple over its upper and outer two-thirds. Pus was discharging through several large sinuses, chiefly in the upper segment, an inch or two from the nipple. The case looked badly, and suggested the existence of multiple abscesses in the gland. Doubtless these communicated with each other and with the surface by numerous

sinuses. In such cases amputation is sometimes thought to be necessary. There also is a possibility of malignancy or tuberculosis in conditions of this sort, but we decided to try simple measures for a week or two at least.

The breast and a large area about it were thoroughly cleansed with soap and water, and then with alcohol and the bichloride solution, in succession, and our usual dressing of gauze, cotton and spica bandage was applied, not forgetting to introduce some strips of iodoform gauze into the openings.

The patient was also instructed to wean the child at once, in order to destroy all functional activity through sympathy with the healthy gland. (In sub-acute and chronic cases this measure is essential to success.)

In two weeks, the dressings having been renewed every two days, the discharge had completely ceased, the openings were all closed and the induration was nearly gone. In another week the woman was discharged with very little visible evidence that the breast had ever been seriously affected.

The treatment of retro-mammary abscesses has been purposely omitted, and that interesting and very practical topic, infection, its causes and prevention during lactation, has not been alluded to. My object has been to present a few notes on the practical treatment of intra-mammary abscess.

VOLUNTEER PAPERS. LIV. MÉNIÈRE'S DISEASE. BY DR. CORNELIA S. STETTLER.—PART I. *Pathology.* I beg to submit the following paper, based upon an excellent clinical lecture by the celebrated Dr. Gilles de la Tourette:* (1) Because the subject has not been especially brought to the notice of this Society; and (2) because the therapeutical portion of that lecture furnishes a new and striking verification of the homœopathic principle. The case cited, which answers for a text, is doubtless the counterpart of what some of our members must have seen and treated.

Case. It is the case of a man fifty-nine years of age, a worker in zinc, and of robust constitution. About two years ago, when he first consulted us, there was no evidence of syphilis or alcoholism. Although he had arterial sclerosis the urine showed no trace of albumen, which was a very important fact. He was not usually subject to vertigo, else he could not have followed his occupation on the roof of buildings.

* *La Semaine Médicale*, 18 Aout. 1897.

He was in good habitual health until the last of June, 1893, when upon one occasion, as he was quietly about his work, he had the sensation in the head, at the level of the right ear, of a violent explosion. At the same time and before he could recover his senses, his entire body swayed vertically backward and then forward, and he fell upon his face with such force upon the edge of the sidewalk that the nasal bones were broken by the fall. He arose dizzy and bloody. It is possible that he lost consciousness for a moment, and the extremely violent shock that he suffered will explain his temporary vertigo. He bit his tongue, but there was no involuntary discharge of urine or faeces, no convulsions, and nothing but the vertigo and the fall would lead one to suspect epilepsy.

From that time the right ear became the seat of an abnormal *bruit* of a sort which became singularly exaggerated with the other symptoms. The vertigo was permanent; in the street the head turned around and the houses danced before his eyes. He was obliged to catch hold of the walls and of trees to avoid falling. The sensation of dizziness persisted even when lying down, and so he was obliged to give up his work.

This condition of chronic vertigo developed into acute attacks of the same kind. In the month of November, 1893, he was seated at the table when suddenly the abnormal *bruit*, which was constant in the right ear, became very much worse, and instead of an explosion it seemed as if one had thrown a jet of steam into the ear. He could give no further account of his sensations, for the intense vertigo threw him down as before, but without injury. He did not lose consciousness, but when he got up he was dizzy and nauseated, as he had not been before. Frightened with this new attack and feeling that the abnormal sounds in the right ear were becoming worse he entered the hospital, Broussais, where an aurist detected a marked deafness in the right ear. It is certain that the diagnosis of Ménière's disease was made at that time, for they gave him the sulphate of quinia. He left the hospital in five weeks with marked improvement, and believed himself cured in about four months. However, during that time he felt two or three of the oscillations, which took the place of his vertigo, and the abnormal sounds were much lessened, without having entirely disappeared. The affection slumbered, for early in 1894, while engaged in rinsing bottles in a cellar, he fell and injured his face very badly. The old vertigo returned and so also did the auricular sounds. He went again to the same hospital and into the service of M. Barth, which he left in three months very much improved by the use of quinine.

Then he had an almost complete exemption from the trouble for nearly a year, after which he relapsed and returned to the hospital where he did not follow the treatment faithfully. When he left the symptoms were as bad as ever, his head was inclined to turn. When he

wished to cross the street he must wait until all the vehicles had passed for fear of falling among the wheels, and it was impossible to stoop without an immediate increase of the vertigo

Such was the condition of this man when he entered our ward, and it was truly deplorable. He could not walk without holding on to the bed, and was very weak because of the nausea which accompanied the vertigo and interfered with alimentation.

In his original essay (1861) Ménière insisted that, although this peculiar form of vertigo is accompanied by nausea and vomiting, it does not depend upon fullness or emptiness of the stomach, and is not of gastric origin. In that paper he cited the case of a perfectly healthy woman who during a normal menstruation, and while riding on the imperial of a diligence, was suddenly seized with deafness, vomiting and incessant vertigo. She was taken to a hospital where she died on the fifth day. The autopsy showed a healthy state of the brain and of the spinal cord, but the labyrinthine canals were the seat of a decided hæmorrhage. This view was opposed by Trousseau, who described it as gastric vertigo; by Baginsky, who insisted that the auricular lesion was too insignificant to cause such serious trouble; and by others who have referred the special symptoms to meningo-encephalic irritation, apoplectic and epileptic conditions, and to a lesion of the auditory nerve at its origin in the floor of the fourth ventricle.

While the most recent anatomy and physiology of the ear (Bonnier, 1894) proves that the ear vertigo may, and most often does, arise from compression of the labyrinth, yet we should not refer all cases to this cause alone. Another very important causative element is an excessive excitability of the labyrinth, which varies in different subjects, giving rise to deafness in one and vertigo in another person. The source of this hyper-excitability is hard to find; it has been sought among neurasthenic, hysterical and neuropathic subjects. Hysterical persons have a vertigo that is peculiar to their class, while such as happens among neurasthenics is secondary and not primary as it is in Ménière's affection.

After this necessary digression let us consider the lesions of the middle ear which may provoke labyrinthine vertigo. These lesions are frequent and the most of them may have such a result. In the first place the sclerosis of the ear drum is often the cause of it. Occurring especially in gouty subjects with arterio-sclerosis, it usually happens after the fortieth year, which explains why the majority of these sub-

jects will have passed the middle age. Causing ankylosis of the bones of the ear, it is followed by permanent compression of the liquid in the labyrinth; for it fixes the base of the stapes in the oral fenestra without the possibility of its going backward. In fact, besides being accompanied by arthritis of the bones, whose chain has lost its elasticity, this arthritis induces atrophy of the stapedius and destroys its function. Suppuration of the drum may also induce a similar result.

In the cases that we have just examined the abnormal pressure upon the labyrinth is extrinsic, always acting through the tympanum (mass of cerumen—foreign body in external ear) the bones and the oval fenestra in such frequent lesions of the drum. In other subjects the real seat of the affection is within the labyrinth, but such cases are quite rare.

The auricular pathology of this subject is extremely interesting. Gellé collected all the facts obtained at post-mortem prior to 1887. There were eight cases in the list of which three were from Charcot. In three of them the sanguineous effusion into the labyrinth, first described by Ménière, was observed. In M. Féré's single case there was a large accumulation of cerumen, the tubes were closed and the stapes immobile, but the labyrinth was normal. The latter was also normal in the two cases of Lucæ, but in these as in Gellé's cases there was sclerosis of the middle ear with ankylosis of the ossicles.

Schwalbe has shown that the arteries of the internal ear, and particularly those of the cochlea, are very tortuous, and that their ramifications terminate in real glomeruli. These arterial terminals are lined with endothelial cells and form the sub-arachnoidean space. In the interstices of the glomeruli there is secreted a bloody serum which composes the cephalo-rachidian and the labyrinthian liquid.

Under the influence of the arterio-sclerosis the tension in the glomerules and the labyrinth is increased. M. Bonnier attributes most cases of this aural vertigo to Bright's disease. We often find a certain proportion of albumin in their urine, and thus whatever influences the general circulation it also modifies the local labyrinthine pressure. We should add that the sclerosis of the middle ear so frequently observed is also a sequel of arterio-sclerosis, and it is very probable that during the course of these troubles lesions of the drum manifest themselves in connection with those of the internal ear, and vice versa.

The tendency to rupture of the sclerosed arteries that have become dilated into small miliary aneurisms is, however, less important than is the general accompaniment of leukæmia, which may either cause special auricular deposits, or a hæmorrhage into the labyrinth. Every case of

this ear vertigo should be carefully examined by a competent aurist, albeit those specialists are not agreed as to the best method of making such an examination. The urine should also be tested for other signs of Bright's disease than the mere presence of albumen.

The history and course of this aural dizziness, first classified in a brace of clinical lectures by Charcot, is very interesting and is exceeding well given by our author:

The labyrinthine vertigo often begins abruptly, seizing the subject while apparently in perfect health. Sometimes, however, there are premonitory symptoms of an attack the most important of which is a degree of deafness that is indicative of certain morbid changes within the ear, and which may be followed by pressure within the labyrinth. Physiologically we know that the labyrinth can be implicated without an arrest of the function of the cochlea; but clinically, if we except certain intra-cephalic lesions, all derangements of the equilibrium are accompanied by trouble with the hearing. However, all deaf persons are not subject to vertigo, for they may lack the hyper-excitability of the internal ear, the labyrinth and the cochlea, without which Ménèire's disease is impossible.

The signs of this peculiar excitability will cause us to dread an attack even more than a dullness of bearing. They include such symptoms as abnormal sounds in one or both ears; being worse in one if both are affected. The first complaint is of an intermittent buzzing that is worse in certain positions, as when the head is bent down, but which often ceases upon lying down, without our being able to give the reason for it. These buzzing, hissing sounds soon become constant, with frequent exacerbations, and the patient finally compares them to the noise from a jet of steam, or to the whistle of a locomotive. When they have reached this stage we may conclude that the attack is not far off, even if it has not already begun.

The perception of a noise that is more or less acute is the distinctive aura of this disease. Except in the vertigo from intra-cerebral causes, it is very rarely absent. Certain other symptoms, as strabismus and diplopia, are seen more rarely, and are often unnoticed by the patient. Cyon (1878) demonstrated that the section of the semi-circular canals caused the animal to have oscillating movements of the eyeball; and Gellé insists that such troubles of vision as dazzling, or black and smoky views and zigzag flames before the eye, as in ophthalmic headache, with cloudy and defective eyesight, are possible in these cases. It is not until after the attack that the patient recalls the order of the symptoms, for while it almost always begins with an acute noise in the ear, there is also a sudden sensation of unsteadiness, and of toppling forward or backward in the vertical or lateral axis of the body, which is always upon the same side as the affected ear. He feels tha

he has lost his balance and will fall; and suddenly, if he has not sat or lain down, he will be thrown upon the ground either forward, backward or laterally. The fall, however, does not happen in every case even where the vertigo is incessant. Some patients prevent it by remaining in bed. With them, when the paroxysm arrives, there is an expression of mortal terror; the eyes are closed and the body assumes the strangest positions; the face is pale and red by turns, and when the attack is over, they tell in broken, frightened tones of having felt as if they had been rolled like a barrel down hill or had found themselves flying on a steam engine.

After a little quiet returns, and the patient comes out of the crisis with more or less headache that may have preceded the paroxysm and which really has been continuous. There is often a painful nausea like that of migraine which may result in vomiting, and which is of diagnostic import. Especially is this true where what Charcot styles the cardinal symptoms, *id est*, the whistling in the ear, the falling and the gastric condition are much less pronounced than in the case under review.

Although some authors insist that there is a total loss of consciousness during the paroxysm, still there is good reason for holding with Charcot that it is not so. There may be a mental cloudiness or haze, such as comes from turning and whirling, or from certain gyrations of the body, but the patient remains self-conscious; and this is true no matter what the degree of incidental shock and traumatism, or whether or no the patient remains in bed. This negative symptom also has a diagnostic value.

In its evolution the disease varies greatly. Sometimes the paroxysms recur at intervals of weeks or months, and are so slight in degree as scarcely to be recognizable, after which they become more frequent and severe. From the first, however, these patients have the chronic form of the complaint. In other cases its onset is abrupt and acute. Either way, the condition of these subjects is a wretched one. They cannot go into the street without a certain aggravation of the vertigo; they must keep along the wall for support in case of an attack; they are afraid to cross the alley or the sidewalk, to stoop, to blow their nose or to sneeze, and must take their food most carefully, for all these acts tend to increase the pressure in the labyrinth. Their alimentation is bad, for the nausea is almost constant; they lose flesh, and become neurasthenic; the deafness increases to the complete loss of hearing; and exercise being impossible, they must remain within

doors. Mental depression, headache, loss of strength, and general physical and moral anæmia finally close the scene.

It sometimes, but very rarely, happens that with the coming on of total deafness in the affected side there is a gradual abatement of the hyper-excitability of the internal ear, and that, therefore, a spontaneous cure, which requires years for its completion, may result.

The prognosis in Ménière's disease is comparatively serious, for, while the labyrinthine hæmorrhage is not the direct cause of death, the miserable state into which those who have it are placed invests the affection with the worst possible dangers. Hence the importance of its early and intelligent recognition and treatment.

(TO BE CONTINUED.)

CLINICAL CHIPS.—It is claimed that the cocaine treatment for the intractable vomiting of pregnancy may be successfully applied by spraying the nasal cavity with a 2 per cent solution of the drug.——Cirrhosis of the liver has been experimentally induced in rabbits by the injection of phosphorus dissolved in olive oil.——Schlesinger holds that the paralellism between advanced tuberculosis of the lungs and of the tonsils is the same with children as with adults.——The abuse of the pipe causes deafness and that of the cigarette insanity.——Massei insists that if a patient with angina cannot open the mouth we may with certainty exclude diphtheria.——It is claimed that the Carossa method of treating puerperal endometritis is very successful. It consists in passing a catheter into the uterus, leaving it there, packing the organ with gauze, and then pouring into it as much dilute alcohol as it will hold. This process is repeated every hour day and night. The packing is removed in from three to six days.——In tumors of the pelvis obstructing labor the Trendelenburg position is sometimes an excellent resource.

Editorial.

THE SEPTEMBER MEETING.—The presentation of the Report on Surgery (page 518) was an event in the history of the Clinical Society. Based upon ten rare and well-chosen cases, the papers were exceedingly practical and suggestive; and the wide-awake doctor will not let one of them slip or get beyond reach for ready reference. Not only is the Society proud of such a remarkable yield at a single monthly session, but the College and the Hospital in which the members of this particular Section are such excellent workers will feel the reflected credit and glory of such an achievement. *Vive la clinique!*

THE APPOINTMENT OF MEDICAL COMMITTEES.—It was a casual remark of a popular author and such casualties are grateful—that "a premature specialist is a mental cripple." If the following power of our readers is good they will remember that we have touched upon this topic before. We return to it only to add a suggestion that the larger and more responsible medical bodies should not participate in the hot-house production of specialists by the conspicuous appointment of their younger members to either of the sections of medicine and surgery before they are practically familiar with the work and object of that department. For, like a quack advertisement in a religious newspaper, there is a tacit endorsement of the party concerned upon which he may unlawfully trade as a specialist if he chooses to do so.

The other extreme is the placing of the all-around Fellows on several or more committees at the same time where, naturally enough, they will show all their faults in a bundle. If the American Institute will only hold to the rule that is made and provided against this multiple abuse it will do its real friends a great service, and make its printed Transactions much more readable and useful. For, unless one is a medical editor, he cannot be expected to

write upon and defend all sorts of shop-worn themes with impunity. Inbreeding committees are sure to bring trouble and mischief into the medical family.

DOGMATIC THEOLOGY AS A BRANCH OF MEDICAL STUDY.—As a fitting postscript to the jargon and the junketing of the recent International Congress at Moscow comes the news of the opening of the first course of instruction in the Medical School for Women in St. Petersburg. There were more than 200 applicants for admission, but for want of room the class was limited to 160. The original rule rejecting all candidates who did not belong to the orthodox church was finally changed so as to allow five per cent, or eight in all, of the heterodox to be admitted. This tardy liberality is compensated, however, by the requirement that all the students in the new college shall take a course of six months in dogmatic theology.

The segmentation of the essential branches in Medicine has furnished a curriculum for our best colleges that now represents about as many subjects for study as there are hairs in the heads of some of their professors. But there is a natural limit to the supply of those subjects, and it is evident that if the list of teachers and topics shall continue to increase at the present ratio, the time must soon come when outside and irrelevant matters will be forced upon the attention of the overworked student.

The ambitious desire of our far-away friends and the drift of events may account for the position that has been taken; but a few queries are suggested by this bit of very recent news. If "*la barbarie recommence par l'excés de civilization,*" or barbarism returns through an excess of civilization, will we not have made the circuit and reached the starting point again when dogmatic theology must be taught in a medical school? And is not there already enough of uncertainty, dust, fog and dogmatism in our tenets and in our literature? If the old saw very properly cautions against talking theology with a Scotch woman, how shall we defend our faith against those Russian doctors

by and bye? Why should this rare old dish be reserved for the women students exclusively? Have the young men no rights that the colleges are bound to respect? Of course it would naturally be coupled with obstetrics, or materia medica, otherwise the lectures on this very juicy subject should be given by the Dean of the Faculty; but suppose that he is a Pagan?

EXTRA-UTERINE PREGNANCY AND THE GYNÆCOLOGIST.—A highly valued correspondent, whose name and letter are withheld at his peremptory wish, doubts the statement that our present ability to operate safely for the cure of ectopic gestation is a recent achievement which redounds to the credit of the gynæcologist (p. 403). The following quotation from one of the foremost authors of his day is to the point:

"What, alas! can we do in these cases? We could make an incision in the abdomen, and clear away the coagula and the serum. But who is he bold enough to do so? Who is he astute enough to discriminate betwixt all the possible causes of such phenomena with so much clearness as to warrant him in the performance of a gastrotomy for Fallopian pregnancy? There is no such wise and bold surgeon; and, therefore, nothing remains for us but to extend all the relief within the narrow boundaries of our power, and calmly await and submit to the inevitable end. Such are painful scenes to the sensitive mind. They cast a color of gloom over the pathway of the medical man, whose whole walk, indeed, is among those who are in pain, in weakness, in fear, or in the valley of the shadow of death."*

* *Woman: her Diseases and Remedies.* A series of Letters to his Class. By Prof. Charles D. Meigs, Etc., Etc. Fourth edition. Philadelphia, 1859, p. 367.

Hospital Notes.

THE EYE AND EAR CLINIC.

SERVICE OF PROF. C. GURNEE FELLOWS.

Case 1. John —, aged about sixty-five, presented himself at the regular clinic in the eye department for advice as to the following condition: The right eye was blind and had been for a couple of years, and not only was it useless, but the condition had affected his health so that he was unable to work; was suffering from a low grade of fever, loss of appetite, and general nervous debility. His business, that of a carpenter, he had been obliged to give up a year ago, and he was waiting and trying various clinics to see what might be done for the eye. Examination revealed the following condition: Secondary glaucoma, tension plus 2, iris immovable and dilated, cornea hazy; ciliary injection, soggy chronic conjunctivitis. Subjective symptoms: pain, more or less severe according to the weather, worse in dampness and after any exertion of the body, and, particularly, use of the other eye, constant discharge of mucus and an overflow of tears. The patient had carried the eye in a bandage or behind a patch for so long a time that his acquaintances knew him only with the protection, and his lids were swollen and so heavy that they drooped over the offending member.

The question always presents itself as to whether there is more unsightliness in such an eye left in the socket than there would be to replace it by an artificial one. The next question presenting itself is whether any sight can be saved, and whether the ball can remain in situ, depending upon remedies or some lesser operation for changing the appearance. The third question is the control of pain—how may it be done, and the fourth question is of operation upon the general health of the patient. An iridectomy or sclerotomy might relieve the tension or stop the pain, but it is not probable at this late day that the sight will return. The ciliary injection shows inflammation of the deeper structures of the eye, and is probably the cause of the sympathetic irritation of the fellow eye. My experience

has always been that the condition of general health is materially impaired by such an ocular condition, and my advice therefore, taking everything into consideration, is to remove the eye. The patient consenting, I enucleated the eye by the ordinary method, except that the anæsthetic was purely local, the old man fearing to take a general anæsthetic on account of his weakened condition, as well as of some tendency to kidney trouble.

As a rule a cocaine anæsthetic is not sufficient to deaden the sensibility in such an inflamed eye, but by applying freely a four per cent solution in advance of the point of operation, injecting it within the conjunctiva, and over the muscles about to be cut; we did the operation with comparatively little pain, according to the testimony of the patient, and he was satisfied, after it was over, to have had it done by this method without the use of a general anæsthetic.

The results, as far as the wound was concerned, were all that we could expect, and the effect upon his other eye and upon his general health was in every way satisfactory. The ability to use his other eye returned very soon, and his general health improved from the time of his operation, and in a month he returned to thank us for the advice and operation and the improvement in his general condition.

Case 2. Frank D., aged 7, presented himself at the clinic in April, 1897, after having received a blow in his right eye with a large piece of a broken glass bottle. Examination revealed a wound extending from the middle of the inferior half of the cornea to the lower border of the iris, and also penetrating through the capsule into the lens. The anterior chamber was absent and the cornea was gaping. The iris was contracted and imbedded in the wound. The eyeball was soft, but there was no great pain. He was immediately taken into the hospital, hot applications made, and continuous and persistent use of atropine to dilate the pupil followed the cleansing of the wound and the abcising of the protruding portion of the iris. The pupil did not dilate for twenty-four hours, but the application of heat and the careful instillation of atro-

pine finally caused the pupil to dilate, and in forty-eight hours the restoration of the anterior chamber commenced. The lens was swollen and filled both the posterior and anterior chambers, but it slowly absorbed, and in the course of the following week a needling operation was done, and the lens substance continued to absorb. Three or four times slight operations were necessary, but now, in October, an examination reveals a slightly elongated pupil with a small portion absent from the inferior border, a corneal scar, not very marked; vision with the correcting glasses of $\frac{10}{120}$, which would be very useful even if anything should happen to the other eye, and which, even now, can be improved by glasses for near work, and probably even for distance in a few more months.

This case proves the value of taking a patient into the hospital. Other eyes have been lost, and one at present, similar in every way to this, leaves the outcome of the case under discussion, because he refuses to come into the hospital. Had we not put the case under constant observation till the pupil became dilated, it is probable that the swollen lens would have produced a glaucomatous condition, or panophthalmitis, and the eye would have had to be removed; but by constant watching on the part of the nurses, and the rational feeling of the patient's family, we were enabled to bring about a fortunate termination of the sad accident. The boy is hardly disfigured, and carries his eyeball, which is not by any means useless, and which, in case of an accident to the other eye, would be far better than nothing.

THE CLINIC ON GYNÆCOLOGICAL SURGERY.

SERVICE OF PROF. LUDLAM.*

Reported by Cornelia S. Stettler, M. D.

Septic gastritis as a contingent of ovariotomy.—Wednesday, October 6. In my last Wednesday's Clinic we examined *Case 28,024*, a woman æt fifty-six, who was sent to the hospital by Dr. F. B. Brewer. Her tumor, which was an unusually large one, was removed in this

* Continued from page 381.

clinic on Saturday last in the presence of sub-class 6. It proved to be an endogenous multilocular cyst of the right ovary, weighing forty pounds. The fluid was of a dark, olive green color. There was nothing unusual about the case excepting that the abdominal wall was thick and œdematous, the feet and legs anasarcous, the urine scanty and the stomach exceedingly irritable. While being prepared for the operation she had several fits of vomiting, and while taking the anæsthetic threw up a lot of fluid in appearance like that afterward obtained in a large quantity from the mother cyst.

This peculiar septic vomiting as a contingent of ovariotomy for the removal of old and overgrown cysts is sometimes very difficult of cure. You should not forget the possibility of self infection before the operation is made, and of its continuance for days, or even for weeks afterward. Experience teaches that the gastric mucous membrane may become the seat of septic ulceration through the absorption of poisonous matters from the cyst and their attempted elimination at that surface. I have now seen quite a number of them. Indeed, in two fatal cases of the kind that occurred some years ago the lesions were found and demonstrated in my clinic. In one of those stomachs obtained at post mortem, there was a distinct perforating ulcer. Both women had died of intractable vomiting after ovariotomy for the removal of old and practically rotten cysts.

Our patient from whom this tumor was taken is now at the fourth day. The nurse's record, which is here for your inspection, shows that the pulse has not exceeded 100, nor the temperature reached that figure but once, which suggests a possible source of deception in such cases; for if we held that sepsis is always accompanied by a high temperature we would be equally wrong with those who teach that it never is. When the septic material is pent up, like pus in an abscess, a hyperthermic condition will surely be present, or will come and remit until it finds vent. We have an illustration of this in septic peritonitis before an outlet has been established for the escape of the

infected serum. But when there is septic vomiting, or a septic diarrhœa, it is equivalent to the emptying of an abscess for the lowering of the temperature in pyæmia.

Four symptoms are always present in this form of septic gastritis: (1) an inveterate thirst; (2) the vomiting, or regurgitation, of a dark green fluid, that is so acrid and caustic as to excoriate the skin over which it flows from the corner of the mouth; (3) dilatation of the stomach; and (4) great debility and prostration of strength.

For the relief of these distressing and dangerous symptoms two imperative indications are presented. The first is to *put nothing into the stomach*, neither food, drinks nor medicine, no solids or fluids whatever. If the patient will not swallow it, the lips may be moistened, or the mouth rinsed occasionally with cold water, and the necessary medicine, in dilution, placed upon the tongue with an eye-dropper. Dry powders and tablets are forbidden because they excite nausea. Ice has the same effect in these very serious cases, and really increases the thirst. Remember that I am speaking of a peculiar class of cases; and do not fail especially to guard against the mischief that may be done by a soft-hearted nurse or relative through yielding to the desire of the patient for water, lemonade, sour beer and all sorts of things.

The second indication, which is compensatory, is *to furnish food and drink through the rectum.* Injections of warm water should be given regularly every three or four hours. A good way is to fill the colon with the water and have the patient retain it as long as possible. When a part of it has passed away again, or when you are satisfied that it has been absorbed, a nutritive enema of milk, eggs and whiskey should be thrown high up through the rectal tube. This will have the effect to give the stomach a functional rest, to allay the thirst, to nourish and sustain the patient's failing strength, to overcome the tendency to dynamic ileus, and to force the gas to descend by securing the proper peristaltic action.

That our patient is alive to-day, and likely to recover,

is, I believe, due to this treatment. There may be other serious contingencies before us; we shall see; but now she takes a teaspoonful of hot tea each hour, and has not vomited for ten hours, which is the first period of exemption for four days. When her tongue was dry, brown and almost black, 3 drops of baptisia 2 were placed upon it every two hours.

Wednesday, October 13. Our patient is steadily improving. After three days and nights of rectal feeding and absorption of water the gastric irritation ceased and she was nourished by the mouth. Three days ago the right parotid gland became swollen and very painful, but inunctions of hot lard, and the internal use of mercurius corr. 6 caused it to disappear without further trouble. When the vomiting had ceased she had two large involuntary stools of a very offensive character, probably on account of the egg enemata. Her pulse is 80 and normal, and the temperature has not reached 100° but once during the past week, and only twice since the operation. She is now at the twelfth day, in good spirits and bids fair to recover.

A UTERINE FIBROID UNDER OBSERVATION FOR TWENTY YEARS.—Wednesday, October 13. *Case.* Prof. L. showed the class a private patient, forty-nine years old, who was sent to him for treatment for a uterine fibroid twenty years ago, and stated that she had been under his professional care more or less constantly in all that long interval. At first the tumor was large and lodged in the upper pelvis, and the monthly hæmorrhages were frequent and very severe, sometimes lasting for six weeks at a time. Now she measures nearly five inches less about the lower abdomen than she did eight years ago; and for three years past has had no severe hæmorrhage. The menses are regular and normal except that nervous excitement, worry or fatigue may cause a slight flow at any time. There is no growth below the brim of the pelvis, the cervix is free, the tumor is also free and can be rolled from side to side across the body. Its surface is as smooth as it was originally. The patient has never conceived. Her general health is good. She travels a great deal and has just returned from a vacation of some months.

It is not often that one has an opportunity to note the clinical history and progress of such a case as this for so long a period. When this woman first consulted me it was a much more serious question as to the best course of treatment for her than it would be at this time. She had had excellent advice in the way of internal medication, and electricity had been persistently tried, as it was used in those days. In desperation she was sent to me in the hope of surgical relief. But in the few operations that were then made for uterine fibromata they were almost always fatal. The technique was imperfect, we knew nothing of sepsis save that it was inevitable, and so, as it has happened many times since, in spite of the temptation to remove this tumor, it was allowed to remain, and a conservative course was adopted.

Fortunately the conditions for carrying the growth with little comparative risk were good. She was active, plucky, not at all nervous, cheerful, sensible, a good patient to do as I said, and possessed of independent means. My remedies, chiefly trillin 3 or secale 3, gradually controlled the hæmorrhage, and a proper personal hygiene with travel and cheerful society did the rest.

If these conditions had been reversed, as they usually are in such cases, she certainly would not have been alive, or as well as she is to-day. But if they continue she can face the approaching menopause with a good measure of confidence. The tumor is shrinking and there are no new growths; its surface is smooth and it is as mobile as ever; the functions of the bladder, the rectum, the kidneys, and digestion are intact. Therefore, all things considered, I have advised her to "let well enough alone," and not to let any one operate upon her unless and until there are signs of degeneration in this growth, or of serious mischief arising from its presence.

This is a very exceptional case, and it proves the rule that it is almost never safe to allow such tumors to remain without an operation for their removal. Because she has escaped the most imminent peril without the knife it does

not follow that a hysterectomy is not often advisable and necessary.

TUBO-ABDOMINAL PREGNANCY; REMOVAL OF THE FŒTAL CYST THROUGH THE VAGINA; RECOVERY. Wednesday, September 15.—*Case 28,015.* Mrs. ——, æt. seventeen, had a child at fifteen, two years ago, and has been ill ever since. For three months after delivery she flowed constantly; three months ago she had her menses every two weeks; and now for six weeks she has had a free and almost constant hæmorrhage with pains of a bearing down character, particularly in the left inguinal region. She is so weak and exhausted, and the pain on standing is so severe that she had to be carried to the ante-room. The treatment that she has had has been of little avail. The bi-manual examination reveals a tumor low down in the pelvis, in the Douglas pouch, behind and to the left of the uterus. A vaginal incision was advised to determine its nature and to settle the question of its removal.

September 18. A vaginal cœliotomy was made before sub-class 1. The tumor proved to be a fœtal sac, which was exposed and enucleated through the retro-uterine incision. It was as large as an orange, and was filled with clots and serum.

Wednesday, September 22. Three points are suggested by the clinical history of this case, and the study of this specimen obtained at the operation: (1) The possibility of menorrhagia from local causes lying outside of the uterus; (2) the causal relation between hæmato-salpinx and extra-uterine pregnancy; and (3) that when the tube is ruptured instead of falling within the embrace of the broad ligament, the fœtal sac may drop into the Douglas pouch, become attached, and then develop as a retro-uterine tumor.

In case of hæmorrhage, or of leucorrhœa, because the flow escapes through the cervical canal, we are not to conclude that it necessarily originated within the womb. In young and middle-aged women especially morbid states of the ovaries, the tubes, and even of the peritoneum are more often responsible for the unnatural loss of blood. And the probability of such an outside lesion is very much increased if the patient has ever conceived and passed through labor, whether in abortion or at term. I have

many times removed the appendages for the relief of menorrhagia after repeated currettment and all sorts of local treatment had been applied to the uterus and had failed to control the flow and to cure the case. Be careful to remember, therefore, that whenever it is possible, the intelligent and successful treatment of an obstinate menorrhagia makes it necessary to decide whether the cause is intra-uterine, extra-uterine, or both together.

A distention of the Fallopian tube, or of any portion of it, with blood constitutes hæmato-salpinx. It may arise as retention cysts are formed by the accumulation of the proper flow; from traumatism, or torsion, from septic inflammation, or from the ordinary causes of hæmorrhage affecting the closed tube. But the most frequent cause of hæmato-salpinx is tubal pregnancy. Indeed almost every case of it may properly be referred to that particular and peculiar cause. With very few exceptions such cases always warrant and demand surgical interference, otherwise the early lesions go from bad to worse until a fatal hæmatocele or suppuration may result. Bearing this in mind you are not, however, to conclude that because hæmato-salpinx is almost always accompanied by extra-uterine pregnancy therefore the converse of this proposition is true; for in most cases of tubal gestation there is no hæmato-salpinx.

That in the great majority of cases extra-uterine pregnancy is first tubal is conceded; and that any portion of the oviduct may be the seat of the accidental lesion is equally certain. When the fœtal sac is attached to the outer end of the tube, or perhaps, to the surface of the ovary, its early detachment results either in tubo-ovarian abortion, or the sac falls among the intestines, or into the Douglas cavity, where it may be inclosed by adhesions and become, as it was in this case, a source of suffering and ill health. Lodged in the space behind and to the left of the uterus (for the left side of the Douglas pouch is lower than the right), we speak of it as a case of abdominal instead of intra-ligamentous pregnancy. And so it is intra- and not extra-peritoneal. This specimen shows that the gestation sac may be preserved and continue to grow even after the embryo is starved and absorbed, its place being taken by a mole, or by clots of blood that are more or less firmly organized.

Miscellaneous Items.

Prof. O. L. Smith, Chairman of the Section on Diseases of the Throat and Nose, will present the report at the next meeting of the Clinical Society, October 30.——The Southern Homœopathic Medical Association meets in Nashville, October 19-21.——Dr. E. Manning, a very clever alumnus of the Old Hahnemann, of Rockford, Ill., died August 28, of chronic phthisis; and Dr. R. N. Flagg, of Yonkers, N. Y., also, from an attack of acute insanity.——Physicians of the three leading schools of medical practice in Kansas held a joint meeting in Topeka, September 28, to develop "a proper fraternal feeling."——Dr. Alice B. Brown, formerly resident physician at the Hahnemann Hospital, has located at 1803 Barry Avenue, City.——Removals: Drs. J. D. Hadden, from Baldwin, Iowa, to 743 120th Street, W. Pullman, Ill.; A. W. Evans, from Independence, Kansas, to Colorado Springs, Colo.; C. R. Phelps, from Plano to Casey, Ill.; C. L. Mabie, from Chicago to Colton, Cal.; J. J. Hinckley, from Smith Terrace to 2743 Curtis Street, Denver; M. A Boyd, from Bloomington to Rockford, Ill.; E. M. Oviatt, from Benton Harbor, Mich., to Del Norte, Col.; A. M. Pompe, to 705 Wealthy Avenue, Grand Rapids, Mich.; and Dr. Grant Houston, from 406 N. E. Avenue, to 102 Buel Avenue, Joliet, Ill.——Dr. Gerette H. Pierce has located at 461 W. Seventh Street, Erie, Pa.; and Dr. Jessie H. Phillips at New Sharon, Iowa.——Dr. M. R. Faulkener, of Vineland, N. J., has been appointed Pension Examiner for Cumberland County in his State.——The Eye and Ear Clinic in the Old Hahnemann, which is exceedingly full, is running five days each week.——*Apropos* of this item Dr. Swan will place a Javal & Scholtz ophthalmometer into use in his refraction clinic for Friday afternoons.——Our thanks are due the courtsy of friendly authors for copies of the following reprints: Dr. W. B. Van Lennep, *Appendicitis;* Dr. D. H. Beckwith, *A History of Homœopathy in the State of Ohio;* Dr. Judson Doland, *The Treatment of Malaria;* Dr. J. T. Biddle, *Answers to Questions Concerning Homœopathy;* Dr. H. W. Roby, *Man's Debt to Water;* Dr. Chas. G. Davis, *Vaginal Hysterectomy, a Review of Sixty-six Consecutive Cases;* and Dr. O. S. Runnels, *Here and Hereafter; A Memorial Address.*